

**THE IMPLEMENTATION OF CLIMATE CHANGE ADAPTATION POLICY
IN COASTAL VIETNAM**

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by

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ABSTRACT

Climate change is a global problem, its effects are profound, threatening human and natural systems, and the achievement of the Sustainable Development Goals of the Global Agenda 2030. In practice, while climate change policy development is a priority of national and local governments worldwide, the implementation of climate change adaptation (CCA) policy, known as a ‘wicked’ problem, has not been very successful, with climate change related impacts continuing to increase. Despite the existence of a substantial body of literature on policy implementation as a whole, there is only limited literature on the implementation of CCA policy, especially in the developing world.

This study explores, describes and explains the process of implementation of CCA policy in Vietnam, a coastal developing country in Southeast Asia, which is highly vulnerable to the impacts of climate change including variability and extremes. Employing a multi-level governance (MLG) approach to implementation studies, the research investigates how CCA policy is transferred and transformed from national to local level; how CCA policy is mainstreamed into sectoral policies; explores the perceptions of Vietnamese government officials from local to national levels on CCA policy and planning; and identifies motivators for and barriers to CCA policy implementation in the context of coastal Vietnam.

The thesis adopts process rather than evaluation approach as public policy implementation is viewed as a process over time involving various actions to put policy into effect. A multi-method research design involving document analysis and interviews was performed to investigate CCA policy implementation in coastal Vietnam and is a case-oriented rather than variable-oriented investigation. Two out of 28 coastal provinces in Vietnam were selected as case studies which represent two different climate regions and the main river deltas in the country. The researcher used thick description, followed by analysis and explanation of the implementation process of CCA policy. The CCA policy field and two case studies provided a good opportunity to examine policy implementation in MLG.

Data collection was designed into two stages, in the first round, relevant policy documents were collected and preliminary interviews were conducted. Initial findings from the first fieldwork stage informed the second one which mostly focused on semi-structured interviews. Documents relevant to climate change and five sectoral policies: socio-economic development; disaster; forestry; coastal; and water management, were collected. Fifty-four semi-structured interviews and informal discussions were conducted at all four levels of government in Vietnam (national, provincial, district, and commune levels), of which there were eight interviews of non-state respondents who provided independent critiques on government’s CCA actions. Content analysis of policy documents and thematic analysis of interviews were performed to achieve insights to answer the research questions.

Findings show that the implementation of CCA policy in coastal Vietnam is manifested through two broad mechanisms, which are vertical CCA policy implementation (central-local interaction) and horizontal CCA policy implementation (mainstreaming process, CCA policy interplays with relevant sectoral policies). The former was more progressive than the latter, both mechanisms were found in each of the two case studies. In each mechanism, there are two sub-mechanisms including policy-level actions which is termed the intermediate step between the original CCA policy and practice and project-level activities which are concrete actions on the ground. The CCA implementation process occurs within the existing institutional arrangements which influence generic public issues governance including CCA and are determined by historical, political and socio-economic factors. Various actors and stakeholders influence the adaptation policy implementation process which relates to negotiations among them. In addition to public agencies, non-government stakeholders and the Communist Party of Vietnam (CPV) play important roles and form CCA policy networks. In respect of coastal adaptation, infrastructure options were given priority as the consequence of government officials' perceptions of climate change as disaster. Local government officials also perceived climate change as a source of funds from state and donors, which is an underlying driver of adaptation actions rather than the risk of impacts of climate change in their localities. There are evidences of decrease in interests in CCA at local and sectoral levels in contrast to the increase in impacts of climate change.

This research adds to knowledge of MLG, public policy implementation, and CCA. It contributes to the ongoing substantive discourse about what constitutes adaptation and adaptation policy, and how to translate CCA policy intentions into actions with evidences from a coastal, developing country in Southeast Asia. It also provides insights into knowledge of public policy implementation and MLG theories, which remain under-researched in the context of developing countries. The integration of policy implementation and MLG responds to the shift from government to governance of public issues, focusing on both vertical (top-down and/or bottom-up) control and command, and horizontal interactions of policy actors and stakeholders (policy networks) in the policy processes. In respect to practical contribution, the research findings may help facilitate good governance and effective policy implementation of CCA policy in Vietnam as well as, potentially, other coastal, developing countries facing the challenges of climate change.

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LIST OF ACRONYMS

AC	Adaptation Committee
ADB	Asian Development Bank
AF	Kyoto Protocol Adaptation Fund
AFD	French Development Agency
AR4	IPCC Fourth Assessment Report
AR5	IPCC Fifth Assessment Report
ARs	Assessment reports
BAU	Business as usual
CAF	Cancun Adaptation Framework
CBA	Community-based adaptation
CCA	Climate change adaptation
CCWG	Climate Change Working Group
CIDA	Canadian International Development Agency
COP	Conference of the Parties
CPV	Communist Party of Vietnam
DCCA	Division of Climate Change Adaptation
DARD	Department of Agriculture and Rural Development
DCC	Department of Climate Change
DFAT	Australian Department of Foreign Affairs and Trade
DMHCC	Department of Meteorology, Hydrology and Climate Change
DIC	Department of International Cooperation
DIONRE	Division of Natural Resources and Environment
DOF	Department of Finance
DONRE	Department of Natural Resources and Environment
DPF	Department of Planning and Finance
DPI	Department of Planning and Investment
DRR	Disaster risk reduction
DSENRE	Department of Science, Education, Natural Resources and Environment
DSI	Division of Sea and Island
DSTE	Department of Science, Technology and Environment
DWMMH	Division of Water, Minerals, Meteorology and Hydrology
DWRM	Department of Water Resources Management
EIA	Environmental impact assessment
EP	Environmental protection
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
GHGs	Greenhouse gases
GI	Government Inspectorate
GoV	Government of Vietnam
Hai Phong DONRE	Hai Phong Department of Natural Resources and Environment
Hai Phong MPC	Hai Phong Municipal People's Committee
HDI	Human development index
HEC	Human Ethics Committee

ICM	Integrated coastal management
IMHCC	Institute of Meteorology, Hydrology and Climate Change
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
ISPONRE	Institute of Strategy and Policy on Natural Resources and the Environment
JICA	Japan International Cooperation Agency
K-Eximbank	Export-Import Bank of Korea
KPIs	Key performance indicators
LDCF	Least Developed Countries Fund
LDCs	Least developed countries
M&E	Monitoring and evaluation
MARD	Ministry of Agriculture and Rural Development
MCD	Centre for Marinelife Conservation and Community Development
MDGs	Millennium Development Goals
MH	Meteorology and hydrology
MLG	Multi-level governance
MOF	Ministry of Finance
MONRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MRV	Measuring, reporting and verifying
NA	National Assembly of Vietnam
NAP	National adaptation plan
NAPAs	National adaptation program of actions
NCCC	National Climate Change Committee
NCCS	National Climate Change Strategy
NDCs	Nationally Determined Contributions
NGGS	National Green Growth Strategy
NGO	Non-governmental organisation
NRE	Natural resources and environment
NTP	National Target Program
NTP-RCC	National Target Program to Respond to Climate Change
NWP	Nairobi Work Program
ODA	Official Development Assistance
PA	Paris Agreement
PAWP	Paris Agreement Work Program
PMU	Project management unit
PPP	Public-private partnership
RCP	Representative Concentration Pathways
RIA	Regulatory impact assessment
ROIs	Return on investments
SCCF	Special Climate Change Fund
SDGs	Sustainable Development Goals
SEA	Strategic environmental assessment
SEDP	Socio-economic Development Plan
SEDS	Socio-Economic Development Strategy
SO	Standing Office

Soc Trang DONRE	Soc Trang Department of Natural Resources and Environment
Soc Trang PPC	Soc Trang Provincial People's Committee
SOEs	State-owned enterprises
SP-RCC	Support Program to Respond to Climate Change
SPs	Special reports
SRD	Centre for Sustainable Rural Development
TAR	IPCC Third Assessment Report
TP-RCC-GG	Target Program to Respond to Climate Change and Green Growth
UN	United Nations
UNDP	United Nations Development Program
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollars (currency)
VASI	Vietnam Administration of Sea and Island
VCA	Vulnerability-centred adaptation
VFF	Vietnam Fatherland Front
VND	Vietnamese dong (currency)
VNGO&CC	Vietnamese NGO and Climate Change Network
VPCC	Vietnam Panel on Climate Change
VUSTA	Vietnam Union of Science and Technology Associations
WB	World Bank Group
WMO	World Meteorological Organisation

CHAPTER 1:

INTRODUCTION

1.1. Research Problems

This thesis examines how climate change adaptation (CCA) policy is implemented in coastal Vietnam. Climate change is seen as a severe threat to sustainable development (Intergovernmental Panel on Climate Change [IPCC], 2014). Governments worldwide have adopted relevant policies to address climate change impacts and vulnerability. The implementation of such policies is of interest among researchers, policy-makers and practitioners. While climate change policy development is often a high priority for many governments, the success and effectiveness of adaptation measures may take a long time to become apparent (Keskitalo, Juhola, Baron, Fyhn & Klein, 2016). The IPCC (2014), the leading international scientific body for the assessment of climate change, claims that progress on CCA implementation has so far been relatively limited. Governments at different levels, especially in developing countries, mainly work on adaptation planning and policy-making, and the translation of CCA policies into actions is being delayed. Many challenges are faced by countries with respect to how to implement CCA strategies and plans. Keskitalo et al. (2016) reported that there are various international and national climate change policies however, implementation at the local level appears poor. Reasons vary and may include resource and capacity constraints and limited coordination and collaboration between policy actors at different governance levels. A further highlighted problem of CCA policy implementation is that consideration of climate change has not yet been sufficiently mainstreamed into sectoral development policies.

In respect to CCA studies, Rykkja, Neby and Hope (2014) claim that although climate change is a contemporary research field, there is a lack of studies focusing on climate change from disciplines such as political science and public administration. According to Pollitt (2015), public management research has been slow in addressing climate change issues. The application of theories of multi-level governance (MLG) and policy implementation as analytical frameworks for climate change policy studies remains in its infancy. There is a further relative lack of studies on the implementation and management process of CCA policies (Rahman & Tosun, 2018) and the influences and interactions between multiple administrative levels (Clar & Steurer, 2019).

Dupuis and Knoepfel (2013) claim that the implementation of adaptation policy is rarely investigated. Research on CCA barely uses knowledge, theories, and conceptual frameworks from sociology and policy science to explain institutional barriers to CCA. The IPCC (2014) also asserts that there is limited academic research available on implementation of adaptation plans, most works centre on climate change scenarios, impacts, vulnerability, strategies, and plans of adaptation with few assessing CCA implementation processes. Reports on CCA projects and programs are mainly prepared by international development agencies, non-governmental organisations (NGOs) and

national and local governments. Adaptation is therefore a new policy field, limited knowledge exists in relation to adaptation policy development and implementation (Vogel & Henstra, 2015). In its recent report, IPCC (2018) highlighted a knowledge gap in the understanding of what CCA policies work and recommended more empirical studies on climate change policy effectiveness in order to enhance the implementation of the Paris Agreement (PA) and the Nationally Determined Contributions (NDC).

The governance and implementation of CCA policy largely remains a blind spot in social science research (Rykkja et al., 2014; Biesbroek et al., 2018a). From a political science perspective, Javeline (2014) argues that questions about adaptation are less about the science of adaptation and more about political, socio-economic behaviours and institutions which facilitate or hinder these behaviours. Concerns focus on why some adaptation options have been chosen, and why some localities and sectors get protected over others, with these being political rather than technical questions about adaptation. Yet despite adaptation being fundamentally political few political scientists study CCA.

Implementation studies originated in the United States in the 1970s, with conceptualisations of MLG being introduced in the 1990s in Europe. Research within and between each body of knowledge remains limited in the global South. Policy implementation is generally a highly complex affair, especially given the growth of multi-level governing practice and fragmentation of the public sector through arm's-length agencies, privatisation and decentralisation (Marsh & McConnell, 2010; Exworthy & Powell, 2004). Nevertheless, implementation research attracts social scientists since the success or failure of a particular policy often occurs at the implementation phase of the whole policy process (Treib, 2014). Exworthy and Powell (2004) argue that traditional implementation studies have focused on vertical dimensions of governance (central-local hierarchy) and neglected the horizontal dimension (central-central and local-local collaborations). In their book series on implementation studies, Hill and Hupe (2002, 2014) highlight the importance of horizontal inter-organisational relationships in governance and policy implementation of public issues. In sharing the multiple dimensional interaction perspective of the policy implementation process, the study of public policy implementation explicitly recognises 'wicked' problems (Head, 2008), as well as 'third generation' implementation studies (Goggin, Bowman, Lester & O'Toole, 1990; Saetren, 2014) and 'neo-implementation studies' (Hupe, 2014; Hill & Hupe, 2014). Nevertheless, the multi-layer problem of policy implementation remains unresolved (Hupe, 2014).

The locus of this empirical research is Vietnam. The country is situated in Southeast Asia and is characterised by a long shoreline, incorporated lowlands and densely populated deltas, with three-quarters of its population living in the coastal areas (Zimmer, Jakob & Steckel, 2015). The livelihoods and sources of income of rural and coastal communities in Vietnam largely depend on climatic conditions (Adger, 1999). Vietnam's high vulnerability to anticipated increases in climate

variability and extremes is of concern to policy-makers in the process of socio-economic development (Buch-Hansen, Khanh & Anh, 2013). The GoV has taken various actions to address climate change impacts. A number of climate change policies have been developed and implemented, new institutions have been established and new functions in relation to climate change governance have been added to existing relevant public agencies. Nevertheless, research on coastal adaptation to climate change impacts remains limited. Vietnamese policy-makers have acknowledged problems relating to implementation of existing climate change policies: “climate change responses have been reactive ... state management, task delegation, decentralisation and coordination among ministries and localities have been weak; monitoring, evaluation and inspection have been ineffective” (Communist Party of Vietnam [CPV], 2013, p.1; author’s translation). At the time of this research, no previous work integrates theories of MLG and public policy implementation in the study of CCA policy in Vietnam.

The policy issue of CCA is relevant to the MLG approach since it is considered as a ‘wicked’ problem, cutting across administrative levels (vertical governance) and sectors (horizontal governance) (Head, 2008). Climate change policy is a nascent policy field and there remains a lack of academic work especially those employing theories of MLG and implementation. The IPCC (2014) also emphasises the importance of multi-level institutional coordination between different political and administrative layers. Unclear roles and responsibilities between levels will hinder adaptation implementation with horizontal interplay among actors and policies at the same government level (mainstreaming) being key to CCA. The issue of MLG of CCA is a real challenge for government at all levels. The gaps in the literature and real-life problems of adaptation governance have led to this inquiry about how CCA policy is implemented in coastal Vietnam. This is the main research question.

1.2. Research Objectives

This research examines how CCA policy is implemented in coastal Vietnam. The research is grounded in three bodies of knowledge including MLG, policy implementation and CCA. It aims to help fill knowledge gaps on implementation studies as well as in the CCA literature, and to solve real-life problems in respect of CCA governance practice in Vietnam and coastal developing countries. To achieve these purposes, the specific objectives of this research are:

- (i) to investigate how CCA policy is transferred and transformed from national level to local level in Vietnam;
- (ii) to investigate how CCA policy is mainstreamed into sectoral policies in the coastal context in Vietnam;

- (iii) to explore the perceptions of Vietnamese government officials from local to national levels on climate change, impacts, CCA actions, and;
- (iv) to identify motivators for and barriers to CCA policy implementation in Vietnam.

The MLG perspective draws attention to the role of non-state actors (e.g. international donors and NGOs in Vietnam) in CCA policy implementation at different government levels, highlighting policy networks in adaptation governance. MLG also pays attention to the diffusion of governmental power across levels, how the central government devolves its authority to local governments (known as decentralisation in public administration). CCA mainstreaming (horizontal implementation) is also a central focus in the present research, for example de Oliveira (2009) argues that how CCA policy is integrated to sectoral policies determines the success of CCA policy implementation.

Policy implementation is the translation of policy into actions. There is a black box between CCA policy and actions on the ground, and this research aims to open this box. The context of this implementation study (coastal Vietnam) therefore determines the ‘contents’ of the black box.

1.3. Significance of this Research

The present research is one of the few attempts to bring the two knowledge domains of MLG and implementation together in a study on CCA policy. There are limited academic works on implementation or governance in CCA studies, especially in developing countries, and the combination of the two analytical approaches in investigating CCA policy is relatively rare in the literature at the time of this research. The MLG approach to implementation studies helped avoid the typical pitfall of implementation studies, which relates to policy formulation and implementation continuum.

In Vietnam, the Confucian tradition of statecraft and the socialist state model influence the governing, policy-making and implementation of public issues (Shanks, Luttrell, Conway, Vu & Landinsky, 2004). The empirical research findings therefore contribute to implementation literature by examining the applicability of implementation theory outside their ‘traditional’ research environment (the United States and Europe). In respect of practical contribution, this research seeks to improve the effectiveness of CCA policy implementation in a developing country context via identifying barriers to implementation on the ground then proposing respective solutions.

1.4. Thesis Structure

The thesis is structured into ten chapters, this introduction has established the scope, context, and significance of the research being conducted. Chapter two centres on implementation and MLG of general public policy with key definitions and the theories and methodologies employed to study policy implementation. The chapter highlights the vertical and horizontal dimensions of public policy

implementation. Chapter three directs attention to the specific policy field under investigation, CCA policy. It presents relevant concepts, framings of CCA and previous studies. The ‘wicked’ nature of CCA fits the horizontal and vertical interactions in the policy implementation process. A conceptual framework is provided at the end of each chapter from chapter two on to help explain graphically the main elements of the study and the relationships among them as well as the data to be collected and analysed (Robson, 2011). Conceptual frameworks are essential to the process of understanding public policies and their interactions and offer a language and frame of reference for examining policy problems (Hall, 2011a; Judge, Stoker & Wolman, 1995). The conceptual framework for this research is developed based on theories of policy implementation and MLG as well as the specific national context of the research, as discussed in chapter four, which is Vietnam, a coastal, developing country in Southeast Asia. Information on climate change impacts, government structure and relevant climate change research in and about Vietnam is presented. Chapter four ends the literature review section of the thesis with a prescriptive model of MLG and implementation of CCA policy in coastal Vietnam, which suggests how CCA policy *should* be implemented. Chapter five is concerned with research methodology and details of how data were collected and analysed to address research problems (answering research questions).

Chapters six, seven, and eight present the research findings, and show how CCA policy has actually been implemented in coastal Vietnam (vertical implementation in chapters six and seven, and horizontal implementation in chapter eight). Chapter nine discusses the findings reported in the three previous chapters. The initial conceptual framework of CCA policy implementation is then revised in line with how CCA policy is *actually* implemented in coastal Vietnam. The thesis ends with chapter ten, on conclusions and implications where the researcher discusses why this study matters, synthesises of the key points and recommends new areas for future research.

1.5. Chapter Summary

Coastal countries in the global South including Vietnam are highly vulnerable to climate change impacts especially sea level rise (Kulp & Strauss, 2019), however CCA policy implementation information in this region is scant (Sova & Schipper, 2019). There exist knowledge gaps in studies of MLG and implementation of CCA policy in developing countries against the fact that climate change impacts are increasing and a number of climate change as well as CCA policies have been adopted by national and sub-national governments (what can be referred to as policy-on-paper). The implementation of such policies (policy-in-practice) however remains questionable or unknown (Sova & Schipper, 2019). This research fills both knowledge and practice gaps of CCA governance and implementation, with empirical investigation conducted in coastal Vietnam.

This chapter has established the scope, context, and significance of the research being conducted. It identified research gaps and real-life needs, stated purpose and objectives, and introduced the

theoretical approach to examining the research problem (figure 1.1). The next chapter reviews literature on public policy implementation and MLG.

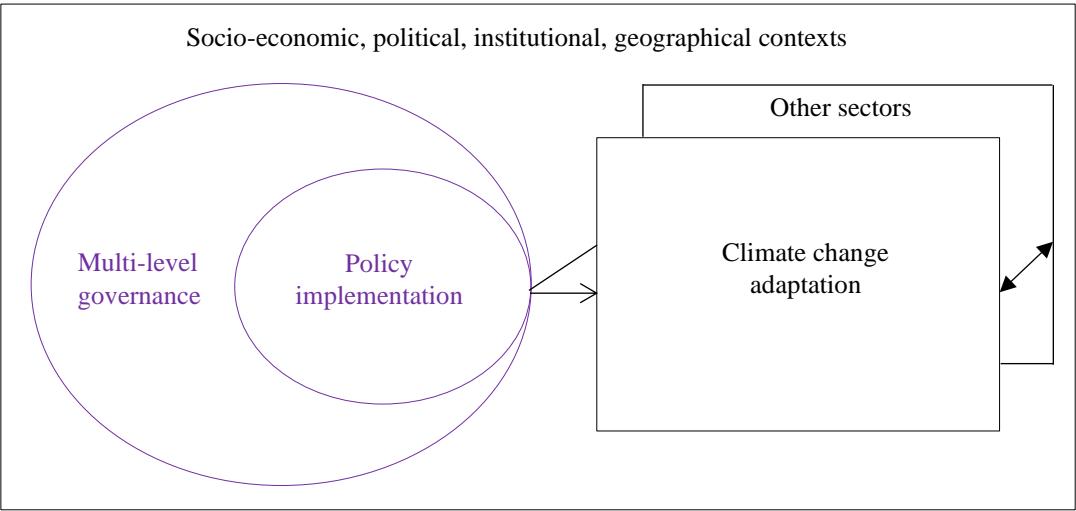


Figure 1.1: Theoretical approach to the present research (source: Author)

CHAPTER 2:

POLICY IMPLEMENTATION AND MULTI-LEVEL GOVERNANCE

2.1. Introduction

This chapter presents a review of general issues of public policy implementation and multi-level governance (MLG) before moving to the particular policy field of inquiry, climate change adaptation (CCA). The chapter starts with the public policy literature, focusing on the implementation process, the concept and practice of MLG, and key themes relevant to the research topic. It ends with a research conceptual framework highlighting the vertical and horizontal dimensions of the policy implementation process. This model will continue to be modified in chapters three and four with new elements added that reflect the policy field of inquiry and the country context of empirical examination.

2.2. Public Policy and the Policy Process

2.2.1. Definition of public policy

Definitions of public policy vary. Jenkins (1978) conceptualises public policy as a set of interrelated decisions made by actor(s) concerning the choice of goals and how to reach them within the power of those actors. This definition implies that many decisions are taken to solve a societal problem and the capacity of the government is limited. According to Barrett and Fudge (1981), public policy can be defined as the implicit or explicit intentions of government; public policy provides the framework for government agencies to control, regulate or promote certain facets of society. Another well-known conceptualisation of public policy was introduced by Anderson (1984, p.3) for which public policy is “a purposive course of action to deal with a problem or matter of concern”. More broadly, public policy involves behaviour, intention, action and inaction and arises from a process over time, which includes relationships within and between organisations (Hogwood & Gunn, 1984). Dovers and Hezri (2010) define public policies as positions taken and communicated by governments that recognise a problem and what will be done about it. The differences in public policy definitions are explained by the divergent perspectives of scholars (Hill & Hupe, 2014). Nevertheless, albeit with variations of complexity and simplicity, these definitions share some common aspects, noticeably public policy is made by the government to address common issues in society. In this sense, public policy is governmental policy (to distinguish from private policy which also influences the general public such as insurance or social media policy), which provides direction and solutions of the state to address public issues to achieve set goals. The governmental direction and solutions of a particular policy can be expressed in a number of policy, legal and executive texts over time

2.2.2. The policy process

Public policy-making is a process, evolving through a sequence of discrete stages (Ham & Hill, 1984;

Hogwood & Gunn, 1984; Jann & Wegrich, 2006; Howlett, McConnell & Perl, 2017). In an influential work Simmons, Davis, Ralph and Sager (1974) consider the public policy process as a sequential flow of interactions between government and non-government actors who jointly identify governmental actions to address societal problems. The outcome of a policy flow is a policy decision, which guides administrative actions and may be expressed in legislation, executive orders, or administrative rules. The public policy process involves value choices (priorities, needs, wants), which largely depend on leadership. Simmons et al. (1974) also introduced the concept of policy coalescence to capture the interactive process in which policy becomes more articulated or specific. In the present research, policy coalescence refers to the transference and transformation of CCA policy from national to local levels.

The policy process is often disaggregated into a series of stages and sub-stages to simplify policy studies (Howlett & Ramesh, 2003). The staged approach to the policy process was initiated by Lasswell (1971) who split the policy process into seven phases including, intelligence, promotion, prescription, invocation, application, termination and appraisal. The limitations of this model are that it does not recognise the role of non-state actors and the policy environment and stages are illogical as appraisal occurs throughout the process rather than at the end, given that the policy process invariably does not progress in a linear manner. A simpler model was introduced by Brewer (1974) who argues that the policy process consists of six stages that operate as a continuous cycle: invention/initiation, estimation, selection, implementation, evaluation and termination. The works by Lasswell (1971) and Brewer (1974) inspired some policy scholars in the 1970s and 1980s including Anderson (1984) who introduced the five-stage model which is widely cited in the literature: agenda setting, policy formulation, decision making, policy implementation and policy evaluation (Howlett & Ramesh, 2003). Recent public policy studies have continued referring to the five-stage framework (Dorey, 2005; Sabatier, 2007; Anderson, 2014).

Some authors criticise the stages framework for being unrealistic as the stages are sometimes blurred and it is overly rationalistic (Hogwood & Gunn, 1984; Nakamura, 1987; Stone, 1989). The five-stage model implies a linear progression in the policy process, which might not be the case in reality while its application is also unclear, e.g. what unit of analysis should be used? (Howlett & Ramesh, 2003). According to Pressman and Wildavsky (1973), and Jann and Wegrich (2006), policy is formulated and implemented in dynamic environments, which are so complex that the distinction between formulation and implementation is difficult. Policy is often formulated as it is implemented and vice versa (policy learning and policy change). However, the 'stages' model remains widely applied in the public policy literature (Hill & Hupe, 2002, 2014). Parsons (1995) states that the stages framework provides a useful systems approach to policy analysis; and within each stage, various variables and approaches can be applied. Each stage can be investigated separately or in combination with others. Furthermore, public policy studies rarely apply the entire policy cycle model as an analytical framework guiding the identification of questions and variables. Similarly, Howlett and Ramesh (2003, p.245) argue that

“each of [the stages] can be investigated alone or in terms of its relationship to other stage of the [policy] cycle. This allows the integration of the study of individual cases, comparative studies of a series of cases”. In a study on urban policy process, Eger and Marlowe (2006) reformulated and developed on the stages model. While a range of published papers are based on the cycle model, academic debates in public policy have developed from work related to specific stages of the policy process rather than on the whole policy cycle (Hill & Hupe, 2014).

The present research is about the implementation ‘stage’ in the whole policy process. Although the focus is on implementation, policy formulation will be discussed where relevant. Implementation is seen as a sub-process within the broader policy process, and the implementation-formulation linkage is regarded as a dynamic continuum. Further discussion of policy implementation concepts and studies is presented below.

2.3. Public Policy Implementation

2.3.1. Definition of policy implementation

Policy implementation is a stage in the policy process concerned with turning policy intentions into actions (Hall, 2009); it can be seen as the ultimate realisation of policy goals (Hupe & Hill, 2016). Implementation is the ‘carrying out’ of a policy decision, which usually identifies problems to be addressed, stipulates objectives to be pursued and structure implementation process (or sub-process to distinguish from general policy process) (Mazmanian & Sabatier, 1983; Rykkja et al., 2014). Hill and Hupe (2002) follow the approach of Ferman (1990) and DeLeon (1999), and interpret implementation as what happens between policy expectations and policy results. Comparing actual achievement and what was expected in the policy text can result in the identification of an implementation failure or gap. Haug et al. (2010) consider that implementation is a phase in the policy process in which the selected instruments are applied to a target group. Influentially, Barrett and Fudge (1981) state that public policy implementation is the translation of policy into actions; the study of implementation aims to understand the relationship between policy and action, which is usually not a simple linear transmission but a process of interaction and negotiation between different actors. The definition of policy implementation by Mazmanian and Sabatier (1983, p.20-21) is particularly relevant to this study:

Implementation is the carrying out of a basic policy decision, usually incorporated in a statute but which can also take the form of important executive orders or court decisions. Ideally, that decision identifies the problem(s) to be addressed, stipulate the objective(s) to be pursued, and in a variety of ways, ‘structure’ the implementation process. The process normally runs through a number of stages beginning with passage of the basic statute, followed the policy outputs (decisions) of the implementing agencies, the compliance of the target groups with those decisions.

Where policy stops and implementation begins depends on where one is standing and which direction one is looking (Barrett & Fudge, 1981). For those at the top level of the political system (elected politicians), everything following the party manifesto is implementation. For those working at ministerial level, implementation is the translation of general governmental policies into specific policies which are relevant to their ministries' mandates (policy-level actions). For executive officials at provincial level, implementation is the process of subsequent refinement and translation of policy into specific measures and tasks to put policy intentions into effect (project-level activities). With street-level bureaucrats, their day-to-day work is about policy implementation. Barrett and Fudge (1981) continue to emphasise that it is crucial to examine what is happening to public policy as it is successively translated and refined. This raises questions such as how far do the detailed interpretations relate to the original intentions? Or, what is exactly being implemented? Is the policy flexible so that what is implemented can be different from the original policy intention? Is it good if local implementers tailor government policy to local circumstances? Or, is it bad if policy goals have been distorted?

Hill and Hupe (2003) distinguish between policy formulation and implementation; the former is about objective setting while the latter is the realisation of those objectives. The connections between the actions of 'setting' and 'realisation' should be given attention. In the implementation stage, policy can be adjusted (policy change), elaborated or even rejected by front-line government officials. Implementation actors can include those who were not involved in the policy formulation stage (Hudson & Lowe 2009; Tantivess & Walt, 2008). Whilst public policy is formulated by government agencies, it may be implemented through a wide variety of individuals and organisations (stakeholders), which may or may not be part of the state apparatus, the implementation process may then more or less depend on government's influence or control (Barrett & Fudge, 1981).

In the event of disappointing results, policy formulators tend to blame the implementers. When confronted by disappointing results, policy formulators' reaction will often be to attempt greater control of the implementation of that policy by creating more regulations. The outcome of disappointing policy results can therefore be more policies. With respect to successful policy, the general reaction of government is not different, successful policy also generates more policies. This observation of government's reaction to successful and unsuccessful policy is termed as the accumulation of policy (Hill & Hupe, 2014) or as a policy space (Majone, 1989). This phenomenon can be seen in the policy landscape of sectoral management (e.g. environment, tourism, agriculture), where there are more and more public policies being introduced by a national government to address a particular public problem. However, introducing a new policy or governmental program/plan to correct a policy problem is not necessarily a rational response. Implementation problems might not be caused by poor performance of bureaucracies and their officials but be rooted in poor design in the previous 'stage' of policy formulation. Problem framing therefore determines choices of policy goals and solutions which then affect subsequent implementation.

The policy implementation process is inherently political (Newig & Koonzt, 2014). Pulz and Treib (2006) viewed implementation as a political process with respect to policies being re-shaped or re-defined by policy actors. It is political in the sense that specific options in specific locations are selected but not others. Policy implementation is about collective choice decisions of actors (Kiser & Ostrom, 1982). According to Barrett and Fudge (1981), the policy-action relationship should be placed in a political context and seen as an interactive and negotiative process, occurring over time between different actors. The present research is conducted in a single party-state, where the political aspect of the policy process remains important.

2.3.2. Policy change

Policy change is part of the policy process (Hall, 2011b) and goes hand-in-hand with policy implementation (Cerna, 2013). Policy changes in response to past governance experiences and/or new information (Hall, 1993) with the extent of change ranging from incremental to innovative/transformational (Bennett & Howlett, 1992). Hall (2011b), Grin and Loeber (2007), Nilsson (2005), and Hall (1993) discussed three levels of policy change/learning including incremental change (adjusting or modifying existing policy instruments), conceptual change (changes in policy goals), and political change (shift in beliefs). Empirical implementation studies might observe these changes during the actual implementation process, the first type always happen, the second one might happen, the last one seems less likely compared to the previous two types.

Policy changes or lack thereof can be explained by various theories of the policy process such as path dependency (Pierson, 2000), advocacy coalitions (Sabatier, 1988), spheres of influence (Steinberg, 2003), policy learning (Heclo, 1974), MLG (Hooghe & Marks, 2001), and policy networks (Rhodes & Marsh, 1992). Studies of public policy processes may integrate elements of these theories to explain how policy changes occur. Note that policy changes lead to both positive and/or negative results (unintended consequences). The notion of path dependence is highly relevant to the present research, in addition to explaining policy change or rigidity and it may also help explain why certain types of implementation solutions are selected by public agencies.

Broadly understood, path dependency means history matters or the past influences the future (Mahoney, 2000). For example, water infrastructure investments in the past affect choices of current and future solutions and measures on irrigation systems. In CCA, past decisions might create a locked-in situation which hinders flexibility to effectively address climate change impacts (Lindegaard, 2013). Path dependency relates to the issue of ‘hard’ adaptation bias discussed in chapters three and nine.

2.3.3. Policy instruments

Howlett and Ramesh (2003) define policy instruments as policy tools that public agencies use to put policies into effect. These are the actual means governments have at their disposal for implementing

policies. Peters and Pierre (2015) argue that more attention should be given to matching instruments with the nature of the policy problems being addressed. Consideration should be given to better conceptualising the nature of policy problems if instruments are to be used effectively and the characteristics that make instruments applicable. This shows that selecting policy instruments can be as political as framing policy problems and selecting policy goals.

There are several different typologies of policy instruments in the literature (Winter, 2012). Peters and Pierre (2015) introduced four instruments for implementing policy including contracts, public-private-partnerships (PPP) (a continuous relationship to implement policy rather than contracting a specific product delivery), networks (contemporary governance), and soft law. Treib, Bähr and Falkner (2007) simply categorised two broad types of binding (rigid coercion or flexible framework regulation) and non-binding (recommendations, voluntarism) instruments. As mentioned above, policy instruments are dependent on policy type, Hall (2008) listed a range of policy instrument groups in tourism sector such as regulatory instruments (laws, licences, permits), voluntary instruments (information, education, NGOs), expenditure (contracts, investment, PPP), financial incentives (grants, taxes). The work of Bemelmans-Videc, Rist and Vedung (1998) is relevant to the present research as it is general enough to capture a variety of different types of CCA related policy documents adopted by national and local authorities in Vietnam. The authors classified three categories of policy instruments including regulations, economic means, and information (table 2.1).

Table 2.1: Typology of policy instruments

Policy instrument typology	Description
Regulatory instruments	rules and directives which mandating behaviours there can be soft laws (flexible as government strategies) and hard laws (rigid, legally binding)
Economic instruments	handing out or the taking away of material resources redistribution of public resources
Informative instruments	influencing people through the transfer of knowledge, communication of information (data, facts) no government obligation or coercion is involved

Source: Adapted from Bemelmans-Videc et al. (1998)

Peters and Pierre (2015) highlighted the choice of policy instruments in governing different societal and economic problems. Ideally, instruments as means of policy intervention should be selected based on the characteristics of policy problems. The present research does not focus on examining the linkage between policy instruments and policy problems since the policy field is already identified at the outset, which is CCA. However, the types of instruments which governments have been using in governing CCA will be considered.

Hall (2008) states that the inherent complexity of many policy issues means that there is usually no single solution and a combination of some policy instruments will be adopted. There will be various measures ranging from voluntary instruments through to highly coerced mechanisms employed to implement a particular policy. Winter (2012) argues that the choice of policy instruments influences implementation. Analysis should go beyond the description of each tool to the reasons governments chose them (move from description to explanation). Theoretically, the choice of tool to implement CCA policy depends on many factors, especially the nature of the policy problem at stake, political system, development level and so on. However, in reality, policy instruments are often selected because they are familiar to policymakers or are popular at the time (Peters & Pierre, 2015).

In relation to the CCA policy process, a national government not only decides whether or not to do something about climate change impacts and vulnerability but also whether it, in consideration of the ‘wicked’ nature of CCA, should implement its decisions through raising awareness and urging people to take actions; regulations forcing action; provision of grants to local authorities, subsidy to firms encouraging them invest in CCA; or combination of all. Since climate change impacts are large-scale problems, which require large and continuous investment, policy instruments that utilise private sector involvement are increasingly being advocated in CCA (Biagini & Miller, 2013). The main intention is to limit the government resource commitments for CCA and leverage resources from the private sectors. The involvement of these private actors also leads to greater accountability for government actions.

2.3.4. Institutional arrangements

There is a need to understand the broad institutional arrangements in which a particular public policy is made and implemented. Institutional arrangements are a macro-variable influencing policy-making and implementation. Institutional frameworks vary across countries, policy types, and over time. The institutional arrangements for a public policy determine how the policy problem is framed, solutions are selected, and implementing actions are taken (Hall & Jenkins, 1995). The role of institutional arrangements in studying policy process is also emphasised by Anderson (1984, p.18) who states that “institutional structures, arrangements, and procedures can have a significant impact in public policy and should not be ignored in policy analysis”. This section focuses on policy actors and their interactions, which are determined by established institutional arrangements in the implementation process.

Understanding institutions

North (1995, p.23) defines institution as “rules of the game of a society”, which organise human interaction. These rules can be formal, such as laws and governmental decisions, or informal, being norms of behaviour and internal codes of conduct. Organisations are ‘players of the game’, which adhere to common goals. Government ministries, research institutes, universities, and firms are

examples. However, some scholars use institution and organisation interchangeably. Bratton and Van de Walle (1997), in an introduction to the notion of 'political institutions', state that institutions can be expressed as organisations such as trade unions and political parties. Political institutions also include formal politics and informal customs. According to Shanks et al. (2004), institutions set the rules of the game and identify the actors (players) involved. Institutions and their organisational expressions are central in the studying of policy choices. Howlett and Ramesh (2003) state that institutions and actors have mutual relationships, the former create space within which the latter perform their behaviours. The authors emphasise both the structural arrangements of organisations and the principles, procedures, and ideas they embody.

Policy actors: 'Game players'

Policy studies scholars highlight the significant roles of various actors in the public policy process as well as implementation (Pressman & Wildavsky, 1973; Simmons et al., 1974; Hjern & Porter, 1981; Barrett & Fudge, 1981; Hogwood & Gunn, 1984; Goggin et al., 1990; Hill & Hupe, 2002, 2014). Identifying actors and their roles in the policy process is critical for effective implementation. Pressman and Wildavsky (1973) state that one of the main reasons for policy failure is that policy-makers do not sufficiently realise the complexity and difficulty of coordinating the tasks and organisations involved in implementation. The policy process is a sequential flow of interactions among state and non-state actors in identifying measures to address societal problems. The behaviour and actions of these actors (individuals, groups, and agencies) will influence policy choices (Simmons et al., 1974). The policy-action relationship should be placed in a political context and seen as an interactive and negotiative process, occurring over time between different actors (Barrett & Fudge, 1981). Hupe (2014) in reviewing the book by Goggin et al. (1990) also raised a question for contemporary implementation studies which is relevant to this research: how do investigators deal with the fact that policy implementation denotes the involvement of multiple actors at different governance levels (MLG)?

Dente (2014) argues that the first and essential step of a public policy analysis is to identify the policy actors, which are individuals or organisations that make actions to influence the policy process. These actors take actions based on the availability of their resources, which are political resources (amount of consensus an actor has achieved), economic resources (money or any form of wealth modifying actors' behaviour), legal resources (regulations, sanctions in the policy process) and cognitive resources (availability of information, knowledge). Their involvement in the policy process is constrained by their logics of action (or rationalities). Actors are those who actually act, rather than just being an interested stakeholder (Scharpf, 1997). A ministry with various departments can be seen as an actor, although in another situation and depending on the unit of analysis, actors may be individual departments within a ministry, not the ministry as a collective entity. Public organisations collaborate based mostly on sharing commitment to implement policy/program legally (Peters, 2014). However, in policy networks which involve diverse actors from different groups, they are glued

together mostly by resource dependence (Rhodes, 1990) and shared belief - advocacy (Sabatier, 1988). The role each actor plays and their interactions will influence the creation and implementation of public solutions, thereby determining policy outcomes (Cahn, 2013). Nevertheless, the debate on the role of policy actors in the literature remains inconclusive (Howlett & Ramesh, 2003).

In the public policy literature, policy actors are classified into two broad types: state actors and non-state actors. The former are those who are involved in the policy process as a result of legal regulatory requirements (constitution/law), and they have powers to enforce policies (e.g. legislature, executive, bureaucracy). The latter have no such governmental responsibilities but still play a role in the policy process (e.g. NGOs, universities, mass media, and citizens). Scholars may then break down these two general categories into more specific groups (Dente, 2014; Howlett & Ramesh, 2003).

Actors' behaviours and interactions: The 'rules of the game'

According to Rhodes (1997), interactions between policy actors are governed by 'rules of the game' or institutions. The behaviours of individual actors as well as their interrelationships are largely determined by the institutional environment which these actors are embodied, especially the existing formal rules such as constitutions, laws, regulations, and their designated mandates (for state organisations). Any sectoral public policy process, such as CCA, is influenced and regulated by established institutional arrangements especially in relation to political regime and the structure of the government. The informal dimensions of institutions also play a significant role in the policy process. However, the type of policy (e.g. defence, economic or environmental), strongly influences the type of actors and stakeholders involved in the policy arena.

Rules, norms, and practices (institutions) influence people and organisations' behaviours (Heikkila & Cairney, 2018). The choices of policy actors and stakeholders can be explained by their understanding of, and compliance to common rules which can be formal or informal. Institutions at one level (e.g. national) can shape actions at another (e.g. provincial), they create the spaces where policy decisions are made and particular types of actors enter policy-making and implementation processes. Institutions can therefore influence choices, and facilitate or hinder actors' behaviours and interactions (Ostrom, 2005).

Many studies have highlighted the crucial roles of different types of policy actors, which interact with each other to pursue their interests. Howlett and Ramesh (2003, p.16) claim that "The results of their [policy actors] interaction is what public policy is about". Relationships among actors can be dependent or independent as their behaviours are constrained by many factors, e.g. policy issue, jurisdiction, values, interests. Understanding the activities and interactions of policy actors is an important step to understanding wider policy processes. Studies of policy actor behaviours have attempted to group actors in conceptual units such as 'policy networks' - actors who share common goals/interests, or 'policy communities' - actors in the same policy area (Kingdon, 1984; Howlett & Ramesh, 2003; Dente, 2014).

These are discussed in more detail in the next section.

Policy processes are about interaction (cooperation, collaboration, coordination) and consensus building, actors exchange resources in networks (resource dependence connects policy actors). Policy failure may be associated with the absence of significant actors or weak commitments among actors to collective objectives. Therefore, effective management of networks will lead to effective governance (Marsh, 1998). Tantivess and Walt (2008) claim that only through the creation of networks, which use and exchange the diverse resources of each group, could each group achieve its overall goal. In reality, different groups of actors have different interests albeit involving the same policy program. Mobilising/manufacturing resources is the main motive for the state to involve non-state actors in the policy process, resources can include finance, experience, knowledge, and the capacity to liaise with local people. Tantivess and Walt (2008) use the term 'policy networks' to highlight the complexity of the policy process and the interactions among government and non-government actors. The state often achieves policy objectives with support from non-state actors however, there are cases where non-state actor networks force the state to make policy change (Rhodes, 1988; Tantivess & Walt, 2008).

2.3.5. Policy networks

The distinction between institutional arrangements (rules and the game and players) and policy networks (a cluster of organisations) is not always clear, although institutional arrangements are usually more formal than policy networks. Heikkilä and Cairney (2018) describe the boundaries between these two notions as 'fluid' with institutions being defined primarily as rules and norms, which make them difficult to separate from networks. From other perspectives (Shanks et al., 2004), institutions represent more fixed structures. Some studies identify shared rules and norms as the main explanation for networks (Heikkilä & Cairney, 2018). In the CCA literature, authors have also raised this problem, which reflect the disagreements as to a field's scope and boundaries (Dupuis & Biesbroek, 2013). The problem gets more complicated when some concepts from other disciplines are borrowed. For example, the concept of vulnerability from disaster and adaptation from ecology have been used in CCA literature (Kelly & Adger, 2000) leading to subsequent conceptual confusion in policy making (Massey & Huitema, 2013), as the meaning of a concept might change when it is transferred to other knowledge domains (Hall, 2016).

Policy networks are a cluster of organisations which are connected by resources and/or power dependencies (Rhodes, 2007). The term network is frequently used to describe clusters of various types of actors who are politically, socially or economically glued together. Contemporary implementation studies (in relation to governance) focus on investigating how networks are structured in a particular sector (Peterson, 2004). Rhodes (1988, 1990) identified several different configurations of networks (issue network, producer network, intergovernmental network, professional network, territorial network and policy community) that varied along some key dimensions noticeably vertical interdependence and horizontal interdependence.

Rhodes (1997) suggests that policy networks are characterised by interdependence between the organisations ('game players') involved; continual interaction between the membership that exchanges resources and negotiates purposes; and interactions that are governed by the 'rules of the game'. These characteristics of policy networks clearly share a degree of commonality with the notion of institutional arrangements discussed above, as well as the concept of an implementation structure discussed by Hjern and Porter (1981).

Hjern and Porter (1981) introduced the concept of implementation structure, an administrative entity, which implementers use for accomplishing objectives within policy. According to Hjern and Porter (1981), there is always a cluster of public and private organisations/actors involved in implementing a specific public policy. Policies (e.g. climate change) are invariably implemented by an implementation structure not just a single organisation (e.g. in the case of Vietnam not only by the Ministry of Natural Resources and Environment (MONRE) but also line ministries and local governments). In implementation structures, policies are usually implemented by both market and hierarchy modes of governance. The hierarchy mode makes possible the accomplishment of complex tasks by mechanisms and subdividing tasks to different subordinate units and helps address the complexity of relationships in the implementation structure.

Implementation structures are not organisations per se. They are comprised of parts of many organisations which, in turn, are linked to parts of many policies. Hjern and Porter (1981) therefore distinguish between implementation structures and organisation perspectives in program (or policy) implementation. The former reflects the complexity of implementation, the latter is attributed to implementation deficits. They also argue that the deficiencies in policy implementation studies are attributed to and exaggerated by analytical frameworks using organisations or individuals as the basic unit of analysis.

The policy networks conceptualisation (policy communities and issue networks) can be applied to the study of interaction among actors (Marsh & Rhodes, 1992; Marsh, 1998). Marsh (1998) states that policy networks serve as links between stakeholders within a policy domain. Networks exist at sectoral and sub-sectoral levels and they influence policy outcomes. Klijn (1997) argues that the policy networks perspective considers that the state is no longer the main steering actor in the policy process. Networks are therefore a mode of governance, different to hierarchies and markets (Treib et al., 2007). Interactions among actors within networks usually create consensus through negotiation, which is a basis for coordination (Marsh, 1998). Some authors also see networks as an alternative to both hierarchies and markets (Tenbenschel, 2005).

Smith (1993) and Marsh (1998) have used the policy networks approach to explain policy change. The most integrated type of policy network is a policy community - policy actors who have a common identity, interest or focus (such as a sector specific policy network). When employing policy networks as an analytical framework, the key themes are resource interdependence, distribution, mobilisation

and exchange in networks. Analysis can explain why some actors are excluded from the policy process whilst others play critical roles (Murray, 2014).

Hall (2009) suggests that the policy networks framework introduced by Rhodes (1981) with respect to the power relationships and interaction between different government levels has found traction in implementation studies since the framework better facilitates understanding of the relationships between policy actors and stakeholders. In the CCA literature, there is only limited academic work employing policy networks to study CCA policy implementation (McAllister, McCrea & Lubell, 2014; Juhola & Westerhoff, 2011; Kern & Bulkeley, 2009).

Policy networks include policy actors (who actually take actions) and stakeholders (who are interested). Networks continue to be formulated during the policy implementation process. Policy actors might be identified in policies before they get implemented, for instance a governmental decision might note some public agencies responsible for executing a particular program. However, in the actual implementation of programs, there are other stakeholders (even actors) involved, which were not participants in the programming stage.

Networks have not only become a key foundation of governance, but are also seen to be especially suited to addressing complex or ‘wicked’ problems (Hill & Hupe, 2014) such as CCA. As mentioned above, implementation studies within the MLG lens focus on investigating how networks are structured in CCA policy (Rykkja et al., 2014; Howes et al., 2015).

2.3.6. Policy interplay

It can be argued that there is no ‘standalone’ policy domain but a set of relevant policy domains that interact within a specific locality in a given timeframe. Elmore (1980), and Hjern and Porter (1981) state that in the implementation process, action cannot be directly related towards specific policy goals since implementation reflects the complexity of interactions. Majone (1989), for example, introduced the term ‘policy space’ to denote the inter-relation of a set of policies. He argues that it is impossible to study a single policy in isolation and not all linkages should or could be considered but instead relevant interactions should be examined depending on the policy type and the framing of the policy problem.

In research on approaches to implementation studies, Hall (2009) uses the same notion of policy interplay; that it is difficult to separate a policy from the influence of other relevant policies (e.g. tourism policy and land use policy). Instead, the study of implementation within a policy domain should be placed within specific socio-economic, political, cultural and institutional contexts (Barrett, 2004). For example, the IPCC (2014) states that coastal adaptation is not implemented alone but in the context of the existing relevant policy frameworks in the coastal zones including, but not limited to, water resource policy, fishery policy, forest development policy, integrated coastal management

policy, and disaster management. Theoretically, these policies will interact during their implementation processes; however, how they interact on the ground and the perception of involved actors on this linkage is often unclear. Young's (2002) conceptual framework of institutional interplay has been applied widely by the scholarly community, including research on environmental change (Dupuis & Biesbroek, 2013; Milman, Bunclark, Conway & Adger, 2013; Chaudhury et al., 2016).

Young (2002, 2008) argues that discrete regimes (or policies) can interact with one another and such phenomenon is becoming more common and significant. Interplay occurs when the implementation of one policy field affects the outcomes of another. He categorises horizontal and vertical policy interplays. The former is the relationship between policies at the same governance level (functionally separated policies), the latter is the interaction between policies located at different spatial scales (cross-scale) of governance (international, national, regional and local). The two forms often occur simultaneously and interact with each other, affecting collective outcomes, including in relation to MLG perspectives that highlight the vertical and horizontal dimensions of policy implementation.

The interplay between policy domains can either be functionally interdependent (e.g. the ecological relation between forest protection policy and biodiversity conservation policy) or institutionally formulated in governance processes (politically intentional interplay) (Young, 2002; Vatn & Vedeld, 2012). Young (2002) claims that functional interdependence emerges objectively while for politically intentional interplay, actors create links between issues and institutions to pursue individual or collective goals. Functional interdependences can trigger political interplay. Institutional interplay becomes a matter of politics when the involved actors make use of overlaps to achieve identifiable goals. Since CCA is a young policy sector, often implemented in the context of other long-standing policies such as agriculture, the implementation of CCA policy may contribute to the realisation of other policy sectors' objectives.

Different policy fields may also influence the same geographical areas (e.g. integrated coastal management policy and coastal adaptation policy both take effect in the coastal zones) or the same target population. Their interaction is of importance in studying implementation (Vatn & Vedeld, 2012). However, there are different degrees of interplay. The interaction between different policies can be negative (or an adverse interaction) as a non-climate policy may constrain adaptation policy implementation. Other types of interplay can be positive (an adaptation policy is enhanced by other policies) or neutral (no change at all) (Oberthur & Gehring, 2006).

Urwin and Jordan (2008) applied Young's (2002) concept of institutional interplay to studying how some sectoral policies (agriculture, nature conservation and water resource) facilitated or hindered the implementation of CCA policy in the UK. The study of policy interplay highlights the trend for policy to mutate as it flows down the policy chain from those that originally made it ('the top') to those charged with implementing it at 'the bottom', what Simmons et al. (1974) termed as 'policy

coalescence'. The top-down model is relevant to examine the interplay between the content of centrally designed policies and the standard adaptive responses found in the climate change literature (Urwin & Jordan, 2008). Conversely, the bottom-up approach is based on the capacity of sectoral actors (charged with on-the-ground implementation), to establish the degree to which policy (e.g. both climate and non-climate) influences their perceived vulnerability and response measures. Policy conflict or difference may also occur at the implementation stage in a manner which was not envisaged by policy formulators at the central level.

The issue of policy interplay is significant to the present research for at least two reasons. First, it acknowledges the complexity of CCA policy implementation on the ground (reality). Second, this research examines the mainstreaming of climate change issues into sectoral policies in a coastal context, which is marked by a number of overlapping policy fields (Falaleeva et al., 2011; IPCC, 2014; Rosendo, Celliers & Mechisso, 2018), therefore the conceptual framework of institutional interplay may help guide analysis of the mainstreaming process.

2.3.7. Factors influencing policy implementation

In the present research, policy implementation process is seen as a dependent variable which is influenced by various independent variables. Hill and Hupe (2002) listed seven categories of independent variables including policy characteristics, policy formulation, characteristics of implementers, administrative layers/levels, horizontal inter-organisational relationships, response by policy target, and macro socio-economic-political policy environment. Hoa (2016) classified four groups of factors which are the characteristics of policy problem, macro-environment, policy actors, and stakeholders. Some of these elements appear especially relevant to this research such as policy characteristics (e.g. CCA); characteristics of implementing agencies (policy actors); policy environment (institutional arrangements); vertical and horizontal relationships; and multiple layer/levels in the policy transfer process.

Political and administrative institutions are macro-variables influencing the policy implementation process since these institutions regulate how public agencies and stakeholders interact in governance. Hall and Jenkins (1995) suggest that institutional arrangements are a significant factor influencing policy-making and implementation, although these may be integrated under the rubric of policy formulation, which regards the formulation-implementation linkage as a dynamic continuum (Hill & Hupe, 2002). This also highlights that how a problem was framed in one stage of policy formulation will determine how the policy will be implemented on the ground at a later point in time.

According to Mazmanian and Sabatier (1983), the factors affecting policy implementation fall into three macro groups: those affecting the tractability of the policy problem; non-statutory variables determining implementation; and those affecting the ability of the statute to provide implementation. Some conditions of effective implementation include clear and consistent policy objectives;

identification of factors affecting policy objectives; sufficient jurisdiction of implementing officials; assignment to relevant organisations with adequate hierarchical integration, supportive legal frameworks, sufficient funding; and leadership in the implementing agencies. Sabatier and Mazmanian (1980) identified six criteria for effective implementation: clear and consistent policy objectives; causal theory-based programs; adequate implementation structure; commitments of implementers; supportive interest groups; and stable socio-economic conditions.

Government agencies are sometimes regarded as inflexible bureaucratic machines, concerned more with their procedures than with the public they serve (Olsen, 2006; Pillay & Bilney, 2015). In such circumstance, the ineffectiveness of public policy is blamed either on decision-makers for issuing wrong policies or on implementing agencies for being unable to take action (Barrett & Fudge, 1981). Pressman and Wildavsky (1973) argue that a main reason for policy failure is that policy-makers do not fully recognise the challenges of coordinating the tasks and organisations involved in implementation.

Norris, Kidson, Bouchal and Rutter (2014) state that governments have struggled with translating policy intentions into changes on the ground. Politics and politicians influence implementation and make it even more complicated. Implementation is challenging as it is difficult to measure, there are uncontrollable factors, and beneficiaries may be hard to define. In addition, implementation may also lead to priority being given to 'low-hanging fruit' with the hardest policy issues often being neglected, while there may also be a mismatch between the cultures of organisations involved in the implementation process. As a result of such issues the implementation of many public policies has been undertaken via the development of specific projects (Rahman & Tosun, 2018). The effectiveness of public policy implementation often depends on the quality of these projects and their delivery (Hoa, 2016). Therefore, project management also often plays an important role in the implementation of public policy.

Barrett (2004) summarises key factors attributed to implementation failure such as a lack of clear policy objectives which then leaves room for different translation in action; problems of communication and coordination among actors involved in policy implementation; value and interest differences among stakeholders; and the respective autonomies among implementing agencies. The policy implementation process deeply depends on the macro socio-economic and political context (Wang & Ap, 2013; Barrett, 2004). For example, Zimmer et al. (2015) identified some obstacles hindering the implementation of climate policies, such as a lack of appropriate information on saving potentials; advanced technologies; resistance by powerful interest groups (industries); inadequate funding to meet initial investments that would pay off in the future; and a lack of capacity to develop policy documents and administer their implementation.

In order to transfer policy to actions on the ground, funding must be allocated, personnel assigned and rules/mechanisms in place (Howlett, 2019). According to Winter (2012), the choice of policy

instruments influences implementation. As noted in section 2.3.3, there are regulatory, economic and informative policy instruments which are used by governments to implement their public policies. The selection and the application of these instruments will influence how policy goals are realised.

The practical questions raised by Hall (2009, p.236) in relation to public policy implementation also provide insights on what might determine implementation on the ground:

What resources and incentives are required to effectively implement policy? Are institutional arrangements appropriate? Is there sufficient authority to successfully implement policy? Does there need to be a change to regulation or legislation? If there are multiple agencies and jurisdictions involved and/or private or non-government partners, how will efforts be coordinated and how do we ensure that every party understands policies and associated goals and objectives in the same way? Can all actors and stakeholders be included in the process and are they committed to the implementation process? Are policies written in such a way that makes them actionable? How accountable are actors? How transparent is the process?

These are questions that this thesis will seek to address. In seeking to help do so, the next section begins to synthesise further the implementation literature by focussing on the three broad theoretical approaches to understanding policy implementation.

2.4. Theoretical Approaches to Policy Implementation

This section discusses three archetypes of policy implementation analysis debated in the literature, the strength and weakness of each policy framework have led to the choice of the theoretical approach to the present research.

2.4.1. The three approaches

Policy implementation researchers have employed various theories in their work, however, there are three main approaches (table 2.2) to studying policy implementation (Hill & Hupe, 2002; Pulz & Treib, 2006; Hall, 2009).

Table 2.2: Key features and applications of the three approaches to policy implementation

Implementation study approach	Main features	Research issue/question	Research methodology	Research aim	View on formulation - implementation link	Policy success	Policy themes
Top-down	Start with a policy decision made by government agencies	Implementation efficiency, effectiveness; links between objectives, outputs, outcomes	Deductive (starts with a prescriptive model – what should happen, then compare with what actually happened)	To improve performance; policy recommendations (prescription/prediction)	Separate; policy made at the top, implemented at the bottom	Outputs are consistent with set objectives	Hierarchy, control, compliance
Bottom-up	Start by identifying the network of actors involved; with a policy problem	Output-outcome-policy problem links	Inductive (starts with empirical observations of what actually happens)	To explain what actually happens on the ground (description, explanation)	Blurry; policy made and re-made during implementation	Local actors achieve their goals	Complexity, local autonomy, devolved power, decentralized problem-solving
Hybrid	MLG; networks; negotiation	Multi-scale policy problems	Deductive/ inductive	To relate implementation with broader governance To relate policy content and policy context	The link is a continuum	Unclear, difficult to evaluate	Networks, MLG, steering, bargaining, exchange and negotiation

Source: Adapted from Hall (2009); Pulz & Treib (2006)

Top-down approach

The top-down approach begins with a policy decision made by the central government, implementation is the hierarchical execution of policy goals set by decision-makers (Pulz & Treib, 2006; Hall, 2009). According to Sabatier (1986), the top-down model starts from a policy decision and centres the degree to which its objectives are achieved. It is a command and control system, from the government to the project, with the top-down approach targeting the intended government policy results. The application of the top-down model is appropriate in cases where there is a dominant public program - a system of legislation and policies for management is in place with a single government agency taking the lead role (Pressman & Wildavsky, 1973; Van Meter & Van Horn, 1975; Sabatier & Mazmanian, 1980; Mazmanian & Sabatier, 1983).

Pressman and Wildavsky (1973) observed that a policy often includes goals and means for achieving them; and the verb 'implement' must have an object like a 'policy'. They consider implementation as the interaction between set goals and actions pursuing these goals. Implementation requires bureaucratic procedures with implementing organisations having adequate resources, clear functions, and authority to execute policies.

Van Meter and Van Horn (1975) introduced a top-down model for implementation studies with six variables: policy objectives, resources, inter-organisational relationship, characteristics of implementing organisations, socio-economic and political conditions, and response of implementers (cognition, behaviour). These variables interact to produce implementation outcomes. Pulz and Treib (2006) argue that this model provides implementation researchers with an analytical framework rather than advising policy-makers on successful implementation. Similarly, Sabatier and Mazmanian (1980) took policy decisions made by government agencies as a starting point in their analysis.

According to DeLeon (1999), in the top-down view, policy is chosen by elected representatives. Barrett (2004) also describes the top-down process as policy once formulated and legitimated at the top or central level then being handed to the administrative system for execution, and successively interpreted into operating instructions as it travels down the hierarchy to practice on the ground. Hall (2009) states that the top-down archetype addresses research questions relating to the effectiveness and efficiency of the link between policy goals (intentions) and outputs and outcomes. Therefore, perhaps not surprisingly, O'Toole (1986) claims that top-down advocates focus on issues of compliance and monitoring.

The top-down perspective is based on the stage model of implementation, noted above, that seeks to make a clear distinction between policy formulation and implementation (Hill, 2013). According to Pressman and Wildavsky (1973), there must be something before implementation. Sharing this notion, Hill (2013) raises several questions such as who is the formulator? Who is the decision-maker? Who is the implementer? Who is more powerful? In fact, there is invariably no single actor serving all these

roles but various actors instead, although one actor may have a dual role of being both formulator and implementer. The approach reinforces the need to identify involved actors and understand their interactions. Hill (2013) also highlights that the act of formulation and decision-making can occur anywhere in the policy process, the assumption that formulators are always at the 'top' or 'centre' is rejected, but decision-makers should be at the 'top'.

Top-downers are criticised for neglecting opinions and actions coming from the private sector and local implementing officials (street-level bureaucrats) (Hill & Hupe, 2002; 2014). Top-down models are difficult to employ in cases where there is no dominant policy or agency but instead there are multiple policies and actors involved with relatively equal levels of importance and power (Sabatier, 1986). Barrett and Fudge (1981) argue that the hierarchical view of policy implementation or policy-centred approach by which policy is formulated at the top and implemented at the bottom does not capture the complexity of reality. Similarly, Barrett (2004) commented that the top-down approach fails to understand the complexity of interactions taking place in the policy implementation stage. For example, policy may be developed from specific innovations on the ground and may be a response to local problems. The policy-centred approach implies that implementers are in compliant relationships with policy-makers. However, in many instances, implementation agencies are autonomous or semi-autonomous (Heidbreder, 2017). Therefore, it is important to investigate implementation not merely as putting policy into effect but also in terms of examining what actually takes place and finding how and why. This critique is in line with the purpose of this research, which focuses on the implementation process, not just policy outcomes and impacts.

Bottom-up approach

The bottom-up approach emerged in the late 1970s and early 1980s (Pulz & Treib, 2006). The approach identifies the network of actors delivering public services in localities and their goals, activities and contacts as being critical for implementation (Sabatier, 1986). This creates a channel for policy problems and their solution to travel from street-level bureaucrats (the 'bottom'), upwards to the 'top' policy-makers (Lipsky, 1980; Hjern & Porter, 1981; Hupe & Hill, 2007). Elmore's (1980) concept of 'backward mapping' even suggests that implementation studies should begin with a specific policy issue and investigate actions of street-level actors to seek solutions.

Under the bottom-up perspective, policy is crafted by local bureaucrats, with supporters emphasising innovation, collaboration and creativity (DeLeon, 1999). The bottom-up approach is relevant for policy areas that involve many public and private actors, when there is no dominant legislation in operation, and the focus is on the dynamics of different local situations (Sabatier, 1986). In the top-down approach the control of policy-formulators is the focus, while in the bottom-up perspective, the impact of local communities or street-level bureaucrats is the primary concern as they are the actual implementers of policy (Wang & Ap, 2013; Hogwood & Gunn, 1984; Lipsky,

1980; Matland, 1995).

There are some drawbacks of the bottom-up approach. Sabatier (1986) suggests that while the bottom-up model focuses on interaction among multiple actors, there is an over-emphasis of the capacity of the periphery to influence the centre. In addition, he argued that supporters of the approach fail to start from a definite theory of the factors influencing their issue of interest. Their networking methodology is effective to identify different actors involved in a policy sector, but it needs to be related to factors determining the perceptions, resources and participation of those actors. The bottom-up perspective also often fails to offer prescriptions for practice and could undermine the role of government (Howlett, 2019).

The role of the on-the-ground public servants may also differ from one situation to another, as practices vary according to policy characteristics (e.g. healthcare or environment), and the socio-economic-political contexts where actual implementation occurs (e.g. decentralisation, the extent central government diffuses power to local authorities). Significantly, there can be other groups of implementers lying between the policy-makers at the 'top' and bureaucrats at the 'bottom', which can be termed intermediate implementers (Shanks et al., 2004). The key argument of bottom-up researchers is policy-making will continue during the implementation process, meaning the separation between the formulation and implementation stages is blurred.

Hybrid approach

With respect to the limitations of separate top-down and bottom-up approaches, there are potentially a number of research and practice reflections that seek to synthesise elements of different theories (Matland, 1995; Barrett, 2004; Sabatier, 1986; Hill & Hupe, 2002, 2014). This hybrid approach to examining policy implementation is referred to as the third generation of implementation studies (Goggin et al., 1990; Hill & Hupe, 2003) or neo-implementation studies (Hupe, 2014). Scholars under the 'hybrid theory' use a starting point similar to that of the top-downers (concern with effective policy implementation), they then blend some elements of the bottom-up approach and other relevant theories into their frameworks (Pulz & Treib, 2006). The combination between top-down and bottom-up approaches is in response to the introduction of the notion of governance of public issues (Rhodes, 1990). Barrett and Fudge (1981) argue that both top-down and bottom-up approaches occur during operational policy implementation. The hybrid approach highlights the horizontal and vertical interactions among policy actors and stakeholders at different government levels and sectors. Therefore, the policy networks (clusters of actors) approach of Rhodes (1988, 1990, 1997) and ideas of MLG (Marks, 1993) are found especially relevant in understanding policy implementation from hybrid perspectives. However, policy networks and MLG have been mostly employed in the European context, with the expansion to Southeast Asian context and a political regime such as that of Vietnam almost absent in the literature, with the exception of Tantivess and Walt (2008) who employed policy

networks in a study of the Thailand healthcare sector, and Di Gregorio et al. (2019) who used MLG and policy networks frameworks in CCA research in Indonesia.

A popular theory of this type is the ‘Advocacy Coalition Framework’ of Sabatier (1988) and Sabatier and Jenkins-Smith (1993). This framework rejects the stage heuristic of the policy process and starts from a policy problem as in the bottom-up approach, and recognises actors at all levels of governance. However, Pulz and Treib (2006) argue that the coalition framework neglects the social and historical context of implementation. Goggin et al. (1990) also developed a communicative model of inter-governmental implementation, but its application is limited to the US federal context (Hill & Hupe, 2002).

2.4.2. Theory choice for implementation studies

There is no single best model for implementation studies, the choice of an appropriate one is very much contextual, depending on the type of the policy issue and the environment of the policy being implemented (DeLeon & DeLeon, 2002). In cases where the policy goal pursues cumulative changes, exhibits a stable policy environment and has a highly dependent institutional context then the top-down model appears relevant. In contrast, uncertain technology, goal conflicts, and an unstable environment may lead to the utilisation of the bottom-up model (Matland, 1995). In comparing the two approaches, DeLeon and DeLeon (2002) conclude that bottom-uppers reflect community interests, while top-downers constrain policy narrowly upon focused interest actors with bottom-up implementation appearing more realistic, practical and democratic than the top-down approach. However, Hill and Hupe (2002) commented that the appropriate approach depends on the policy issue. Similarly, Hall (2009) also states that implementation theory choice depends on the research questions and the answers that the investigator expects.

This research employs a MLG perspective, which focuses on both the policy per se and interactions among relevant actors across multiple levels of government. Therefore, the study of CCA policy implementation in coastal Vietnam will utilise both the top-down and bottom-up approaches to implementation. From the top-down perspective, national policy goals need to be realised, addressing the effectiveness and efficiency between policy goals and outputs and outcomes, i.e. has implementation achieved set goals? From this perspective, ‘achievement’ does not mean problems have been fixed, but rather that policy intention has been realised. In respect of bottom-up concerns, local problems need to be fixed by policy responses, addressing the concern if outputs and outcomes are appropriate to the policy problem (problem-solving). The present research is conducted in Vietnam, a developing country, in this regard, O’Toole (2004) states that implementation challenges in developing countries that lack effective central regulatory regimes (relevant to CCA sector) and budgets need the help of bottom-up analysts who identify mechanisms of mobilising stakeholders outside the state apparatus to lend legitimacy and catalyse effective collaboration.

2.5. Multi-level Governance

2.5.1. Level and scale

Cash et al. (2006, p.2) distinguish between scale and level, they define “scale as the spatial, temporal, quantitative, or analytical dimensions used to measure and study any phenomenon, and levels as the units of analysis that are located at different positions on a scale”. There can be some levels in a scale, for example, the temporal scale can be current, short-term and long-term; the jurisdictional or administrative scale may have national, provincial, district and commune authorities; and the spatial scale relates to geographical area. Natural resource, environment, and climate change problems are often cross-scale phenomenon (Young, 2006). For example, according to Cash et al. (2006) there can be a mismatch between the spatial scale of a public problem and the administrative scale which manages that problem (cross boundary issues). In the present research on CCA policy, the spatial, temporal and jurisdictional scales are clearly relevant to understanding implementation processes.

2.5.2. Multi-level governance

The ‘level’ in the notion of MLG represents various levels in the jurisdictional/administrative scale (Cash et al., 2006), and levels can be international, national, regional, provincial, or local. According to Gibson, Ostrom and Ahn (2000) a problem occurring at any one level is influenced by mechanisms occurring at the same level (horizontal interaction), and by levels below and above (vertical interaction). Research on such problems should be examined from a multilevel perspective.

The MLG concept emerged in the early 1990s in Europe (Duit & Galaz, 2008) as a reflection of the European political system (Pahl-Wostl, 2009) under which governance is organised through multiple jurisdictions. The concept of MLG seeks to explain the diffusion of central government power to actors located at other territorial layers and to private actors. It thus contains both vertical and horizontal coordination aspects. ‘Multi-level’ indicates the increasing interdependence of governments executing at different territorial levels, while ‘governance’ signals the growing interconnection between state and non-state actors (Bache & Flinders, 2004; Pierre & Peters, 2000). The notion of power diffusion from national government to local authorities also relates to decentralisation of public administration to regional centres and/or government (Wescott, 2003; Tran, 2014).

The concept of MLG also highlights that within an institutionally differentiated political system, various levels are interrelated and their decisions need to be coordinated (Frohlich & Knieling, 2013). The term ‘level’ refers to territorial units, such as communities, regions and federal or national states. The MLG framework encompasses two different dimensions of action, which are the vertical coordination across governance levels and the horizontal dimension of governance. The former recognises that a level of governance needs to work closely with other levels of governance to ensure the effectiveness of policy implementation. There is a two-way relationship between

national and local authority, top-down and bottom-up interactions. The latter highlights the phenomenon that actors work across organisational boundaries to influence policy outcomes. The horizontal dimension of MLG is associated with coordination across government ministries to address cross-cutting issues such as CCA (Corfee-Morlot et al., 2009).

MLG emphasises the three-directional dispersion of central government power and control: upwards to international stakeholders, downwards to regions, provinces and communities, and outwards to private actors. Governing is a process of interactions among these actors at different administrative levels (Pierre & Peters, 2000; Termeer, Dewulf & Lieshout, 2010). CCA problems have both local and global causes and effects, which requires solutions at all levels (Bauer & Steurer, 2014). The MLG approach with cross-level interaction characteristics is relevant to address CCA challenges (Termeer et al., 2010).

According to Hooghe and Marks (2003), MLG perspective provides a starting point to understand how central government, local governments, and other public and private actors interact in formulating and implementing public policy. MLG, when used as a conceptual framework, denotes a diverse set of arrangements of interdependent entities (Hooghe & Marks 2003; Duit & Galaz, 2008; Piattoni, 2009), with horizontal and vertical coordination related to the conceptualisation of institutional interplay developed by Young (2002). The approach has been used in policy fields such as European policy-making (Schout & Jordan, 2005; Yee, 2004), environmental governance (Jordan & Lenschow, 2000), environmental policy studies (Fairbrass & Jordan, 2004; Knill & Tosun, 2008; Stephenson, 2013) and economic policy (Eising, 2004).

Hooghe and Marks (2001) argue that governance must be multi-level to capture variations of policy externalities, which arise from the provision of public goods (e.g. environment service). Other benefits of MLG include decentralisation of central power and facilitation of credible policy commitments. The authors identified two types of MLG that focus on the dispersion of authority and its institutionalisation.

In Type I, authority is dispersed to a limited number of jurisdictions at limited levels. These jurisdictions are non-overlapping and relatively stable. In Type II, the jurisdictions are complex, overlapping, and functionally specific (Hooghe & Marks, 2001). The former features the simplistic nature of state control and the use of power in a unitary state, while the latter shows the co-existing levels of authority, overlapping functions, and public and private relations (Hooghe & Marks, 2001, 2003).

Much of the academic works on MLG started first among European and federalism scholars, seeking a framework for the analysis of the relationships between European institutions, the state, and sub-national governments (Peters & Pierre, 2004). MLG has developed as a conceptual framework in European political studies and policy-making since the 1990s (Duit & Galaz, 2008). The concept has

been applied to study policy-making in European countries, as well as the federal systems of the United States and Australia, where multiple actors are involved at various political levels (Betsill & Bulkeley, 2006). The application of MLG in research on statecraft in the developing world remains limited.

MLG is more descriptive than analytical (Smith, 2003). In the present research, MLG is used as an approach to studying CCA policy implementation in Vietnam rather than a theory that alone explains the implementation process. In practice, MLG is also not without its critics. Juhola (2016) argues that there are weaknesses with regard to the efficiency of MLG, decision-making and implementation across multiple levels which can lead to ineffectiveness and fragmentation, and barriers to implementation might emerge as a consequence of vertical and horizontal interactions. Indeed, MLG might also delay policy implementation (Gollata & Newig, 2017).

CCA is multi-level in a sense that local impacts can be addressed by central intervention or even higher, i.e. by international policy frameworks (e.g. United Nations Framework Convention on Climate Change, Paris Agreement). CCA governance, policy-making and implementation are therefore multi-level with the IPCC (2014) recognising that the roles (of levels and actors) within MLG are an issue in CCA. There are five levels in the context of the present research, which are international, national, provincial, district, and commune levels. These will be discussed further in chapters six and seven.

2.6. Doing Policy Implementation Research in a Developing Country Context

Most implementation research has been conducted in North America and Europe (Winter, 2012; Saetren, 2005, 2014; Hill & Hupe, 2002, 2014; Pulz & Treib, 2006; Hupe, 2014; Howlett, 2019). There is a substantial gap of empirical implementation studies in the developing world where both federalism, as in the case of the USA, and supranationalism, as in the European Union, do not exist, e.g. Vietnam. As mentioned above, political and administrative institutional arrangements influence implementation. In both the developed and developing worlds, evidence of third-generation approaches (synthesis of top-down and bottom-up approaches) to implementation research also remain limited (O'Toole, 2004), with the most common policy sectors of interest being education, health, environmental, social, and economic issues (Saetren, 2005, 2014). CCA policy being a new subject in implementation studies (Dupuis & Knoepfel, 2013; Javeline, 2014; Rykkja et al., 2014).

Implementation research has evolved throughout three generations. The first generation was in the 1970s with explorative theory-generating case studies, the second generation was in the 1980s with top-down, bottom-up and the hybrid models, the third generation emerged since the 1990s with comparative and statistical research design (Winter, 2003). This most recent stage has also sought to further internationalise implementation research outside of its traditional North American, European and Australasian focus.

Policy networks and MLG have been mostly employed in the European context, and research in the context of the global South and authoritarian political regimes remain scant in the literature (exceptions include Tantivess and Walt (2008) and Di Gregorio et al. (2019)). Though implementation research has four-decades of development, public policy implementation on the ground remains unclear with reference to CCA policy, even though it is regarded as a significant issue (IPCC, 2014).

The present research is classified as neo-implementation studies - implementation placed within broader multi-level governance (Hupe, 2014) (also see figure 1.1 in chapter one). The research design follows the majority in the literature surveyed by Saetren (2014), with its qualitative interviews, comparative case studies, and cross-provincial comparison. However, what makes this research not yet 'another implementation research' is the policy field under investigation, CCA; that research is conducted in a developing country in the global South; and the employment of MLG approach to studying implementation. These three aspects distinguish this work from previous implementation studies.

2.7. Chapter Summary

Implementation research is ongoing in a variety of fields (e.g. healthcare, environment) however, implementation on the ground remains poorly understood (Newig & Koontz, 2014), especially with reference to CCA. Public policy is implemented within established institutional arrangements which regulate the types of actors involved, and who has the authority to make decisions and take actions. The institutional arrangements for CCA determine how CCA is framed, solutions are selected, and implementing actions are taken. The present research links public policy implementation and MLG in studying CCA policy implementation in Vietnam.

Started since the early 1970s, implementation studies has developed a rich literature. "[I]mplementation inevitably take different shapes and forms in different cultures and institutional settings... [This] is particularly important in an era in which processes of 'government' have been seen as transformed into 'governance'. The latter means that a wide range of actors may be participating and that simplistic hierarchical models are being abandoned. Hence linking implementation with governance is a central [concern]" (Hill & Hupe, 2002, p.1). This implementation research in Vietnam (developing economy, authoritarian political regime) therefore promises to add new knowledge to the implementation literature.

There are different definitions of public policy in the literature, the present research follows Hogwood and Gunn (1984) and Hoa (2016) in viewing public policy as decisions of the state (party-state). The state encompasses government, parliament, and court. Public policy decisions are made by government, which is a collective institution of different ministries. Also note that in the policy cycle, the stage before implementation is decision-making, which means that the output of decision-making

are decisions which then enter the implementation process as input. Public policy implementation is then the implementation of state decisions (Mazmanian & Sabatier, 1983).

Implementation is used to depict either the implementation process or the output and/or outcome of the implementation process (Winter, 2012). The focus of this research is the process of implementation and policy outputs of the implementation process but not outcomes and impacts. Policy outcomes and impacts are complicated, and may not be caused by only CCA policy per se. In this regard, Winter (2012, p.274) states that “outcomes may be influenced by factors that have nothing to do with the policy intervention”. The ‘intermediate step’ between initial policy and concrete measures on the ground is an important point in the policy implementation process. This is called policy-level actions. There are sub-outputs and outcomes being created from the ‘intermediate step’ or policy-level action of the implementation process. However, they make the identification of ultimate policy outputs and outcomes more challenging.

MLG equals ‘multi-level’ plus ‘governance’, the former focuses on vertical dimension, the latter focuses on horizontal dimension. If MLG equals multi-level government then it denotes a hierarchical system, which is a criticism of MLG in the literature. Traditional approaches to implementation studies focus on vertical dimension (Exworthy & Powell, 2004), which is the central-local interplay in the implementation process of public policy. The contemporary approach adds a horizontal dimension into the equation.

Policy implementation emphasises the translation of policy into actions (understood as concrete actions on the ground, yielding expected or unexpected outcomes). MLG focuses on interactions within and across levels of governance (Di Gregorio et al., 2019). MLG perspective also highlights the involvement of non-state actors and the horizontal interactions of related policy domains and actors in the implementation process. These issues and relationships are shown in figure 2.1 and provide an input - process - output model which the thesis will draw on to illustrate how implementation operates.

When examining implementation in MLG, which level of governance is most important for the implementation of public policy? International, national or other levels? The empirical research in Vietnam (four levels: national, provincial, district and commune levels) will identify the most appropriate level for CCA policy implementation (see Phuong, Biesbroek and Wals (2018) for detailed discussion of levels in hierarchical governance of CCA in Vietnam; the diffusion of power among four levels). Hall (2008, p.249) noted the complex of implementation in relation to MLG: “Different layers of governance have different sets of powers and institutional arrangements; decisions made at one level of governance may be interpreted differently at another, with the ‘scope’ of interpretation ranging as a result of legal, political and economic factors and capacities; policy agreement at one level of governance may be opposed at another”.

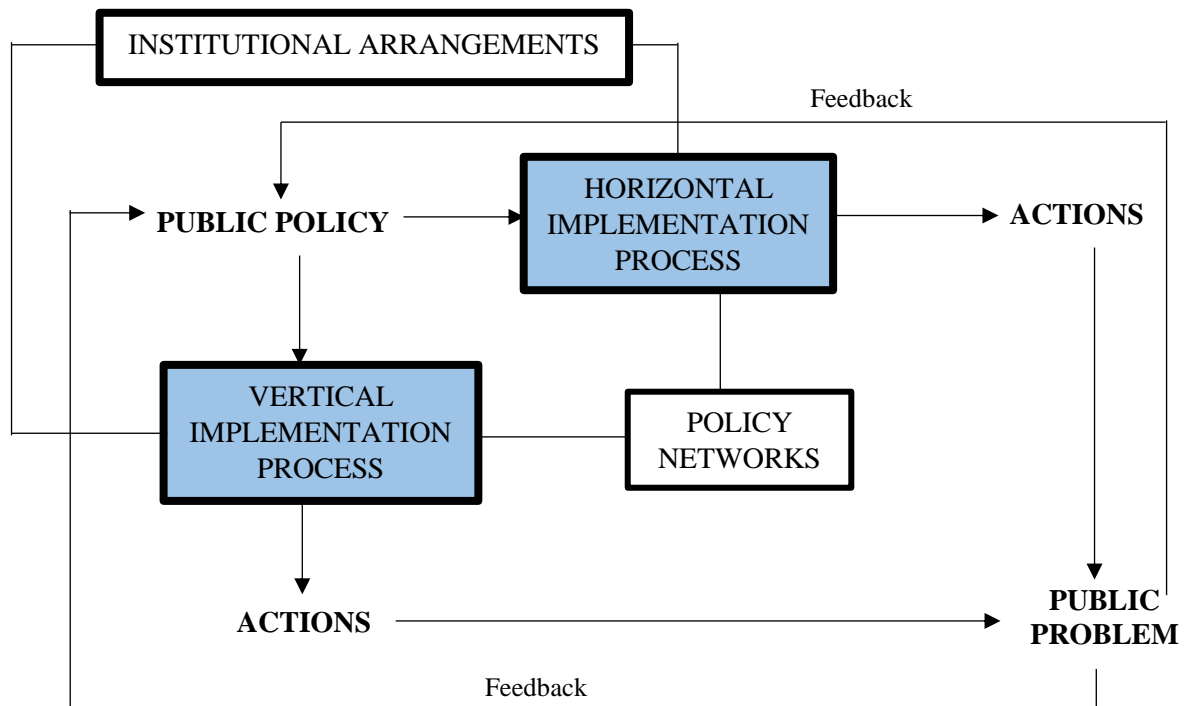


Figure 2.1: Conceptual framework-version 1 (source: Author)

CHAPTER 3:

CLIMATE CHANGE ADAPTATION AND ADAPTATION POLICY

3.1. Introduction

This chapter presents the public policy field under investigation (implementing ‘what’), which is climate change adaptation (CCA). There are two main courses of action in response to climate change: adaptation and mitigation, this research focuses on the former which are actions to reduce climate change impacts and vulnerability. The chapter starts with a brief overview of current trends and projections of global climate change, impacts and vulnerability. It then examines adaptation as the response to impacts. The ‘wicked’ characteristics of CCA are also highlighted. The issue of mainstreaming CCA into sectoral development policies is an important component in the present research, therefore a section specifically analyses this theme. The chapter then discusses CCA policy which are government interventions to address climate change effects. Finally, a prescriptive model of multi-level governance (MLG) and implementation of CCA policy is introduced and illustrates how CCA policy should be implemented.

3.2. Climate Change, Impacts and Vulnerability

3.2.1. Observed and future global climate change

Climate change literally means changes in climatic conditions over time. The IPCC (2014, p.120) defines climate change as

...a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use.

Climate change is not limited to changes attributed by human activities. The changes might be caused by natural phenomena (Garnaut, 2011). In contrast to the IPCC’s (2014) definition, the United Nations Framework Convention on Climate Change (UNFCCC) makes a distinction between anthropogenic and natural climate change by defining climate change as “a change of climate which is attributed directly or indirectly to human activity that alter the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods” (UNFCCC, 1992). The international climate change policy framework therefore concerns human activities in relation to climate change causes, effects, and response.

In the most recent full assessment report (AR5, released in 2014), the IPCC has re-affirmed its findings in the previous reports stating that warming of the climate system is unequivocal.

Observations show a global-scale increase in atmosphere and ocean temperature, decline in ice and snow covers and rise in sea levels. Climate change may lead to changes in rainfall patterns, and increased frequency and severity of extreme climate and weather events such as heatwaves, drought, and storms. In the more recent special report, *Global warming of 1.5°C*, the IPCC (2018) states, with high confidence, that current global warming is around 1.0°C above pre-industrial levels and may reach 1.5°C by 2050.

3.2.2. Climate change, variability and extremes

In the CCA literature, the three concepts of climate change, variability and extremes are not always clearly explained, especially in research papers that focus on climate change policy rather than climate change science. In the present research, understanding the differences among the three climate related stimuli is relevant to the seminal question in CCA studies and practice, which is ‘adapting to what?’ (Smit, Burton, Klein & Street, 1999).

Climate change is the gradual changes in mean of climatic conditions over a long period of time, often decades; it is a statistical phenomenon, difficult to detect by the lay public, via personal experience (Weber, 2010). Climate variability are deviations from long-term mean conditions and refer to shorter term (e.g. seasonal, annual) variations (fluctuations) in climate, and is an integral part of climate change. Extremes are isolated events which are rare at a particular place and time. Extremes are part of annual variability. Climate change, variability and extremes are therefore dependent though different in temporal scale. Climate change is long-term while variability and extremes are short and near-term (Smit, Burton, Klein & Wandel, 2000). People often ascribe unique/isolated climate-related events to climate change (Weber, 2010). The IPCC (2001) states that studies of climate change impacts and vulnerability need to consider climate variability and extremes. According to Berrang-Ford, Ford and Paterson (2011), people and governments pay more attention to the near and short-term impacts of climate variability and extremes (climate fluctuations and hazardous events) than long-term climate changes (trends). The differences of the three types of climatic stimuli are illustrated in figure 3.1.

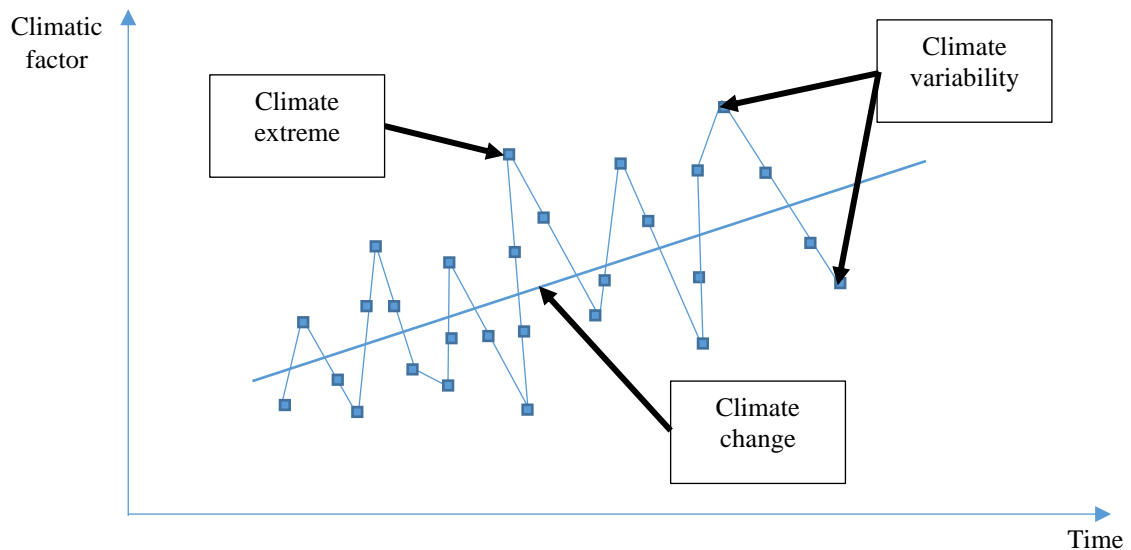


Figure 3.1: Distinction between climate change, climate variability and climate extreme (source: Author)

Conceptually, the core of differences between the three terms is relating to the temporal scale, which is critical in CCA decision-making and policy process (e.g. long-term and short-term interests, electoral circle). Note that other scales such as spatial/geographical and jurisdictional/administrative scales are also significant in CCA research and practice (for further discussion of scale issues, see section 2.5, chapter two).

3.2.3. Climate change impacts

The IPCC (2014) states that even with significant progress in global greenhouse gases (GHGs) emissions reduction, the impacts of climate change are accumulating and getting more serious. There is a scientific consensus on the increasing threats of climate change to society (Rykkja et al., 2014). In a highly influential report of climate change policy, Stern (2006) claims that all countries will be affected by climate change impacts. The poorest nations, regions and people will be impaired earliest and most regardless of their low contribution to the causes of climate change. The costs of extreme weather events and natural disasters (as consequences of changing climate) are already on the rise. In respect of coastal impacts of climate change, Celliers, Rosendo, Coetzee and Daniels (2013) argue that climate change has significant impacts on the physical, social, ecological, and economic environments of the coastal zones including coastal cities and towns, especially on the poor and vulnerable groups within these localities. According to the IPCC (2014, p.124), climate change impacts refer to

the effects on natural and human systems of extreme weather and climate events and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or

hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system.

The IPCC's definition highlights that the vulnerability of an exposed society is not just a function of physical climate change impacts. Instead, non-climatic issues, such as income levels and distribution of wealth, interact with climate change and/or hazardous climate events to produce impacts. Therefore, climate change impacts equal climatic hazards plus vulnerability and exposure.

Risk of climate change impacts is a function of hazard, exposure, and vulnerability, and is often denoted as the probability of loss of life or damaged assets, in a specific period of time (Carrao, Naumann & Barbosa, 2016). It is not necessarily a physical 'given' but determined by socio-political aspects, which require more attention on risk and vulnerability as products of environmental and socio-economic processes (Eriksen, Brown & Kelly, 2005). The external physical hazards interact with non-climate related factors to create impacts to society. There can be first-ordered impacts, second-ordered impacts and so on. Decreased rainfall pattern in an agricultural region leads to drought which then reduces rice yield. Urban flooding may be indirectly caused by climate change, but it is directly a consequence of informal and poorly-planned urbanisation (e.g. inadequate drainage systems). The longer the causal chain the harder the solutions since the underlying causes are unclear. Solely blaming the physical dimensions of climate change impacts for such problems may therefore result in ineffective solutions (Donner & Webber, 2014).

Importantly, climate change impacts are only one group of various problems a particular place, such as a coastal locality, may confront with in its socio-economic development process. There can be other problems such as water shortage, unemployment, urban flooding, poor healthcare services, and so on. Nevertheless, climate change impacts may exaggerate the existing development-related problems in this coastal region (Hewitt, Ellis & Thrush, 2016).

That climate change is occurring is unequivocal, however climate change impacts are highly uncertain as they depend on factors such as the rate of climate change and the interactions of external climatic hazards with internal socio-economic conditions. Climate change impacts on society are therefore contextual. Climate change impacts are often applied in assessment of economic sectors while vulnerability tends to be used for the wider human system, for example a group of people or a coastal village is highly vulnerable to climate change impacts, while the agricultural sector in a region is described as threatened by climate change impacts. Further discussion of climate change vulnerability is presented below.

3.2.4. Climate change vulnerability

According to Kelly and Adger (2000, p.326), "analysis of vulnerability provides a starting point for the determination of effective means of promoting remedial action to limit impacts by

supporting coping strategies and facilitating adaptation”. Giddens (2009) argues that any country should develop detailed mapping of vulnerability before formulating and implementing adaptation policy, since practical actions will not be feasible and effective if the degree and location of climate related risks are not identified and evaluated. This research does not focus on analysing climate change vulnerability but its role in CCA planning and policy implementation is acknowledged. Although vulnerability is treated as the contextual background, having a good understanding of vulnerability is critically important, as it provides insights to understanding and explaining CCA actions and options chosen by policy actors.

The state or level of vulnerability to climate change of a community or region is perceived as giving rise to CCA actions taken by local and national governments (Adger, Arnell & Tompkins, 2005; Dupuis & Knoepfel, 2013). In other words, the primary goal of a CCA policy is to reduce climate change vulnerability. This section also points out that vulnerability is largely dependent on non-climate factors, which are determined by sectoral development plans (e.g. agriculture) rather than climate change policy actions. Climate change policy per se is likely incapable to effectively address vulnerability unless it is undertaken in cooperation with other relevant policies (Klein, Schipper & Dessai, 2005). Given that most, if not all, socio-economic sectors are affected by climate change impacts the need for mainstreaming climate change considerations into sectoral policies is a focal point of climate change policy discussions (Ayers, Huq, Faisal & Hussain, 2014), which is one of the central components of the present research.

Defining vulnerability

The concept of vulnerability was initially developed by O’Keefe, Westgate and Wisner (1976) and Hewitt (1983) within social science approaches to natural hazards. Humans are at risk from natural phenomena such as earthquakes, floods and other anthropogenic hazards (Valey, 1994; Hewitt, 1997). In the 1990s, natural hazards researchers began to target the vulnerability of people to risks of environmental change including climate change. The original use of vulnerability to express the condition of interactions between society and the environment under crisis leads to general observations on vulnerability that can be used in the climate change context (Blaikie, Cannon, Davis & Wisner, 1994; Adger, 1999, 2006; Kelly & Adger, 2000; Smit & Pilifosova, 2001; Yohe & Tol, 2002).

The definition of vulnerability varies considerably among the climate impact and natural hazards research community. Blaikie et al. (1994) define vulnerability as the capacity of a person or group to anticipate, resist and bounce back from the impacts of a risk. It has a combination of factors determining the extent to which human life and livelihood is endangered. Hewitt (1997) defines vulnerability in terms of the human ecology of endangerment and nested in the social geography of settlements. Adger (1999, 2006) states that social vulnerability is the exposure of groups and individuals to stress caused by climate change impacts and climate related extremes; and

vulnerability is the condition of susceptibility to harm from exposure to stresses related to environmental and social changes and from a lack of adaptive capacity. The term ‘vulnerability’ can therefore mean different things to different analysts.

Vulnerability is a dynamic phenomenon. What/who is vulnerable in one period may not be necessarily vulnerable in the next period (Adger, 2006). Vulnerability varies across temporal and spatial scales, varies by type and varies from stimulus to stimulus, and depends on socio-economic, geographic, institutional and environmental factors. Individuals and groups are differentially exposed and vulnerable to climate change impacts. These differences should be recognised and integrated in policy interventions (IPCC, 2012; Smit & Wandel, 2006).

Factors determining vulnerability

Climate change vulnerability is caused by physical and socio-economic factors. The former are external threats to a given society (physical impacts of climate change, variability and extremes). The latter are internal characteristics of a given society. Poverty, gender inequality, limited access to resources, and social and political marginalisation are among the many underlying causes of vulnerability. Although these aspects are not directly related to climate change, they significantly determine vulnerability and adaptive capacity (Daze et al., 2011). According to Adger, Lorenzoni and O’Brien (2009), changes in social causes of vulnerability often occur more rapidly than environmental changes. This means vulnerability is more influenced by non-climatic factors than climatic ones.

A theory of climate change vulnerability should enclose the collective nature of vulnerability of a community to climate change impacts, involving a complex set of factors (Adger, 1999). According to the IPCC (2012), vulnerability is influenced by a number of macro conditions, including anthropogenic climate change, natural climate variability and socio-economic development. The specific factors affecting vulnerability are those directly and indirectly determining exposure and sensitivity, and adaptive capacity. In reality, some of these factors are interdependent.

The interplay of environmental, socio-economic and political dimensions determines exposures and sensitivities. While adaptive capacity is shaped by numerous social, cultural, political and economic forces. Folke et al. (2002) identified four factors affecting adaptive capacity (then vulnerability): learning to live with change and uncertainty; fostering diversity for resilience; using various types of knowledge for learning; and providing opportunity for self-organisation towards socio-economic and ecological sustainability. The authors also linked active adaptive capacity management with MLG systems, the latter facilitating the former.

Poverty reduction is a priority in reducing vulnerability (Kelly & Adger, 2000). Since the poor have greater susceptibility to climate change impacts, their livelihoods usually depend on climate sensitive sectors, they have few assets to recover from climate shocks such as typhoons or floods, and they lack

of information and knowledge on adaptation (Leichenko & Silva, 2014). Institutional arrangements, which deliver warning, planning and other services, will determine vulnerability to climate extremes. If institutions fail to deal with changing climatic conditions and risks, social vulnerability will increase (Adger, 1999). The factor of communication and coordination between the various actors is critical at and between all administrative levels. Indeed, communication/coordination constraints may increase collective vulnerability (Kelly & Adger, 2000). Inequalities also influence resilience and create disaster risk reduction and CCA challenges at both local and national levels (IPCC, 2012).

The main message from this section is there are two dimensions of vulnerability including biophysical vulnerability/hazard-based vulnerability (people are vulnerable when exposed to hazards) and social vulnerability (the underlying socio-economic, institutional and political causes of vulnerability). The former emphasises external climatic threats whilst the latter concerns the inherent properties of society. If the focus is on socio-economic dimensions of vulnerability then CCA measures are different from a focus on physical climate-related hazards. Types of public policies, actors, and governance mechanisms involved in CCA will change in accordance to how vulnerability then adaptation is framed, an issue which is further elaborated below.

3.3. Climate Change Adaptation

The scale and interaction of climate change impacts are increasing with every passing year of cumulative greenhouse gases (GHG) emissions. According to Lesnikowski et al. (2017, p.7-8) “reduction in global GHG emissions is critical in dealing with climate change however the reality of already emerging impacts necessitates the establishment of a stronger international framework for initiating, financing, and implementing adaptation”. Regardless of mitigation progress, the earth continues warming and appears certain to exceed the threshold of 2°C - dangerous climate change if business as usual (BAU) emissions continue (IPCC, 2018). Evidences of climate change and related impacts are overwhelming. CCA is therefore unavoidable (Berrang-Ford et al., 2011).

Based on two dimensions of vulnerability, there are two approaches to adaptation: (1) an impact/hazard-based approach which focuses on technical measures to deal with external climate-related hazards; and (2) a development/vulnerability-based approach which pays attention to the factors that make people vulnerable to climate change impacts. They are often called the underlying causes of vulnerability and include non-climatic factors such as poverty rate and livelihoods of residents (Dupuis & Knoepfel, 2013).

CCAs have to address both type of causes, the social dimension of vulnerability is more complex and often more difficult to identify than the physical dimension. In public policy implementation, governments often choose to pick the ‘low-hanging’ fruits, which in the context of CCA are the physical impacts of climate change since they are visible outputs and outcomes of CCA investment that are tangible and more legitimate to the public. Framing the problem solely in terms of physical

impacts may therefore directly threaten human lives, assets and economic activities.

CCA actions are taken by both private sector (e.g. autonomous adaptations by farmers, households, firms) and public entities. The present research is primarily concerned with the latter, which are government actions (planned adaptations, external interventions) to reduce climate change impacts and vulnerabilities.

3.3.1. Defining climate change adaptation

There are different definitions of CCA but, commonly understood, adaptation is a process of adjustment in response to climate-related impacts and opportunities. According to Vogel and Henstra (2015), these ‘adjustments’ are changes in practices, processes, and structures to deal with climate change.

Overall, there is evidence of the shift of approach to adaptation in the works of the IPCC from the Second Assessment Report (1995), which defined CCA more narrowly in relation to climate change impacts, to recent research that link CCA more broadly to vulnerability processes (Lesnikowski et al., 2017; Bassett & Fogelman, 2013). The IPCC (2014, p.118) defines adaptation as:

The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

CCA includes autonomous adaptation and planned adaptation, the former relates to the autonomous adjustment of systems to climatic changes, also referred to as self-adaptation. According to Ayers (2010) and Adger et al. (2009), many scholars have highlighted the need for better understanding of autonomous adaptations in CCA research. Such adaptations are actions that people take when they confront with changing environmental stresses regardless of external support which is called planned adaptation – the focus of the present research. Autonomous adaptation is internal, from inside the impacted system, the existing coping strategies that people or groups have been using to deal with climatic challenges for years and is similar to coping capacity or adaptive capacity, which already exists in the system. Human societies have always been coping with climate changes including variability and extremes. Planned adaptation is external, intentional intervention into the system, to facilitate coping ability and to raise their existing adaptive capacity then reduce their vulnerability to impacts.

In practice, people and organisations are mostly concerned by climate or weather extremes and climate variabilities (Berrang-Ford et al., 2011). They cause real effects to human and natural systems in real time. This poses a problem of separating between what is defined as CCA and what is classified as disaster management. Are we adapting to climate change (changes in the mean of climatic conditions

– the trends) or are we adapting to climate variability and extremes? According to the IPCC (2007), disasters create windows of opportunity for policy response on disaster prevention and climate change impacts.

Smit et al. (1999, p.200) suggest that the “framework for defining adaptations is based on three questions: (i) adapt to what? (ii) who or what adapts? and (iii) how does adaptation occur?”. They state that adaptation “can be to climate change, to change and variability, or just to climate. It can be in response to adverse effects or vulnerabilities, but it can also be in response to opportunities. It can be in response to current, actual or projected anticipated conditions, changes or consequences” (Smit et al., 1999, p.203). The three seminal questions are widely cited in the CCA literature (e.g. Fussler & Klein, 2006; Ayers, 2010; Berang-Ford et al., 2011; Wise et al., 2014; Ford et al., 2018). Berang-Ford et al. (2011), in reference to Smit et al. (1999), take the questions further and ask is CCA already occurring? Who is adapting, to what, and how? Does adaptation differ between and within localities, sectors? Are adaptations consistent with the threats posed by climate change?

It is crucial to note, however, that the issues, processes and types of CCA are not independent of ‘who or what adapts?’ and ‘adapt to what?’ For instance, adaptations in unmanaged natural systems are mostly autonomous and reactive, whilst adaptations delivered by state agencies are often planned and possibly anticipatory (Smit et al., 1999) with perception of risks determining how adaptation occurs. For instance, when farmers are concerned with loss of crop yields due to salinity they change crops; if agriculture officials see threats of storms, they upgrade sea dikes. Adaptation therefore means different things to different people depending on their positionality (Wolf, Alice & Bell, 2013; Henstra, 2017). The framing of climate change may also constrain measures focusing on symptoms and proximate causes (biophysical causes of vulnerability) rather than addressing the root causes (social causes of vulnerability) of problems (Wise et al., 2014; Pelling, 2011).

3.3.2. Adaptation options

In response to climate change risks, governments around the world have adopted CCA policies, which are actions to reduce vulnerability of populations and assets to climatic risks (Vogel & Henstra, 2015). Adaptation involves changes and decisions relating to resources, values and priorities. It is a ‘messy business’ (Adger et al., 2009), involving making decisions under uncertainty, perception of risks, and constraints in the society. CCA is both a social and political process. Limits to adaptation depend on ecological thresholds, values, institutions and governance (Adger et al., 2009). It is also widely recognised that it is at the local level where climate change vulnerability unfolds and adaptation takes place (Urwin & Jordan, 2008).

Depending on specific conditions, certain type of adaptations will be chosen (Smit et al., 1999). The impacts-based approach to adaptation creates ‘stand-alone adaptation’ (Ayers & Dodman, 2010), or ‘discrete adaptations’ (McGray, Hammill, Bradley, Schipper & Parry, 2007), which are CCAs

specifically focusing on climate change impacts (e.g. coastal defense in response to sea level-rise), ignoring the fact that risks of impacts are formed by many other non-climatic factors (Ayers, 2010).

Ayers (2010) argues that any definition of CCA, and then how adaptation is operationalised, is highly political. Agencies may make CCA decisions regardless of the actual and predicted climate change, impact and vulnerability assessments. There are other political, financial and institutional factors determining the choices and implementation of CCA measures in addition to impacts and vulnerability. In addition to political elements, the choice of CCA options is also determined by historical factors. Keskitalo and Preston (2019) state that path dependence makes some specific CCA options more likely than others (the notion of path dependence was discussed in section 2.3.2 in chapter two). Basically, path dependence states that past decisions encourage continuity, and governmental institutional arrangements are rigid and hard to change (Pierson, 2000). Therefore, policy-makers often take CCA actions that they are familiar with and in line with previous decisions.

According to the IPCC (2014), climate risks and vulnerabilities inform adaptation options. There are a wide range of CCA actions, which are grouped into options, which are then grouped into three categories including social (education, information, awareness raising, warning and forecasting), institutional (policy, action plans, regulations) and physical (engineered measures, sea walls, new crop and animal varieties). Options may cut across categories and there is no commonly agreed typology. The three broad categories of CCA options suggested by the IPCC have been widely used in CCA research (Pelling, O'Brien & Matyas, 2015; Nguyen, Pittock & Nguyen, 2017). Although in practice, the mixed approach to various options is often observed, the IPCC (2014) states that engineered and technological options are commonly selected and implemented, and these options are often integrated in existing programs such as natural disaster and water management. Adaptation options also continue to focus on incremental adjustments and co-benefits.

Incremental adaptation is what countries, societies, groups and individuals have generally been doing with respect to responding to climate change (IPCC, 2014), with this type of adaptation aiming to maintain the status quo (Pelling et al., 2015). However, scholars of CCA have suggested the deployment of transformative adaptation to respond to larger scale and more severe climate change impacts and vulnerability (Kates, Travis & Wilbanks, 2012). Incremental adaptation is what we have, transformative adaptation is what we expect. According to Termeer, Dewulf and Biesbroek (2017), transformative adaptation is an emerging body of literature with many conceptual and practical challenges to put the 'idea' into effect. Transformative change requires innovation in governance of CCA and is concerned with structural change and a development paradigm shift.

3.3.3. Scale issues of adaptation

The spatial, temporal and administrative scales of social and ecological phenomenon (Cash et al.,

2006) are relevant to the present research. In respect of the spatial scale, adaptation at the local level has received attention from researchers since most impacts of climate change including variability and extremes, are experienced at the local level (Mukheibir, Kuruppu, Gero & Herriman, 2013). Within the temporal scale, it relates to the seminal question raised by Smit et al. (1999) which is 'adapt to what?' As discussed in section 3.2.2, the 'what' can be climate change, variability, or extremes, which are long-term, short to medium-term, and current respectively. In relation to the administrative scale, it is the MLG of CCA which focuses on vertical dimensions, or narrowly, multi-level government.

The level within a scale may interact such as national and local levels of government both involved in CCA governance. There are also interactions between different scales, which create problems in governing many social and ecological issues including CCA which spread over administrative, geographic boundaries and time horizons.

Local level adaptation has attracted significant research interest (e.g. Gupta, 2007; Urwin & Jordan, 2008; Adger et al., 2009; Corfee-Morlot et al., 2009; Mukheibir et al., 2013; Vogel & Henstra, 2015; Phuong et al., 2018). Vogel and Henstra (2015) state that local adaptation is not carried out in isolation but is nested within a broader MLG context. Similarly, Phuong et al. (2018) argues that adaptation is localised but managed by higher-level authorities. Gupta (2007) shared that view, claiming that CCA is a responsibility shared by all levels of government although he also pointed out that in practice the division of tasks among these levels are unclear. However, adaption is nested within broader governance structures and processes, local CCA decisions and choices are subject to regulatory frameworks established and managed by central government (Ekstrom & Moser, 2013), when central-local coordination is not effective, this mechanism hinders adaptation actions on the ground.

Establishing a consistent vision for CCA governance across multiple levels is very challenging (Adger et al., 2009). Farmers and households, provincial governments, central governments, international development agencies, and NGOs have different priorities, and they may view climate change problems and impacts differently. Consequently policy actors and stakeholders have their own priorities and logic of actions which influence the CCA policy implementation process.

Theoretically, implementation processes change across levels, since each level has their own priorities and CCA options and actions (Adger et al., 2009). Additionally, there are differences in administering these actions. National CCA objectives may also be ambiguous, leaving room for different interpretations and specific actions on the ground. In some countries, local government's CCA policy responses depend on central government regulation and guidelines, e.g. national climate change strategies, to develop their local action plans (Ekstrom & Moser, 2013). Regarding specific projects to realise policy objectives, the implementation of these projects, from design to approval, execution, and evaluation is tightly regulated in existing formal institutional frameworks which were not initially put in place specifically for CCA governance.

3.3.4. Climate change adaptation challenges, barriers and opportunities

CCA necessitates actions to be taken in anticipation of future risks which are uncertain with respect to the timing, magnitude, and severity. Both state and non-state actors have difficulty dealing with the long-term, ambiguous characteristics of climate change, which hinders CCA efforts (Wagner & Zeckhauser, 2012). Compared to some other public issues such as environment or healthcare, CCA often lacks sufficient importance and urgency to make people demand government intervention. Policy-makers therefore have little political motive to secure resources to CCA (Corfee-Morlot, Cochran, Hallegatte, & Teasdale, 2011; Lorenzoni & Pidgeon, 2006). Additionally, the costs of CCA are immediate, while the benefits are often intangible and will accumulate mainly in the future. This creates challenges in seeking resources for adaptation measures since decision-makers usually pay more attention to the most pressing issues and invest in projects that will create short-term gains (Reisinger, Wratt, Allan & Larsen, 2011; Simonsson, Swartling, André, Wallgren & Klein, 2011). Another aspect in relation to CCA is that climate change impacts and vulnerability are dynamic. They keep changing as climate and society change and are therefore ‘moving targets’. Adaptation to changing impacts and governance of CCA are therefore challenging. These characteristics of climate change impacts require a continuous problem-solving process, sometimes referred to as an adaptive governance approach (Plummer & Armitage, 2007).

There is extensive research on barriers to CCA (Moser, Ekstrom & Kasperson, 2010; Urwin & Jordan, 2008). Adaptation is a process with various stages (problems/impacts/vulnerability identification, planning, implementation), each of which may have its own barriers. There are also cross-cutting barriers (same in all stages) such as lack of leadership, resources (budget, time, personnel, technology), values and beliefs (perception, experience, preference). Urwin and Jordan (2008) also listed other constraints such as scientific uncertainty, state of technology, financial resources, and time as factors determining adaptation. The policy context in which adaptation policy is made and implemented also needs to be considered as it may impede adaptation measures because of institutional, socio-economic, and political structures and processes. The institutional barriers are particularly relevant to the present research. In this regard, inter- and intra-organisation interaction are potentially very significant in policy implementation (Allman, Fleming & Wallace, 2004; Storbjork, 2007; Czako, 2011). For example, the limited cooperation that can occur among government agencies is referred to as the ‘silo effect’ (Exworthy & Powell, 2004).

According to O’Brien (2009), most research on barriers to adaptation focus on technology, finance and institutions. She also highlights the roles of values (traditional, modern, and post-modern) on adaptation measures. These values influence people’s thinking and actions. Values should be considered in developing and implementing adaptation plans as they may help explain why some adaption measures are successfully implemented in one context but not in another society. There are also conflicts between the different values of stakeholders and policy actors, and whose value counts most in the policy-

implementation process. However, it is important to note that values change over time, and what looks appropriate at one point of time within a group of stakeholders may not be so in the future.

In addition to challenges and barriers to CCA, there exists several opportunities for CCA policy-making and practice. Firstly, unlike efforts to reduce greenhouse gas emissions, which inevitably generate resistance from industries that incur major costs (Henstra, 2017), adaptation is usually not subject to opposition from the business community. This enhances the legitimacy of CCA policy. Secondly, there have been changes in international climate change frameworks on the role of adaptation in climate change response. This is exemplified through the Paris Agreement (PA) adopted in 2015. Consequently, more attention is being given to CCA from political stakeholders (Lesnikowski et al., 2017). International organisations including UN agencies have also become more interested in CCA, reflected through increased CCA investments through adaptation funds such as the Green Climate Fund.

The present research focuses on CCA rather than mitigation, it is therefore worth explaining the preference of the former over the latter in climate change response in developing countries, including Vietnam. Generally, the CCA research community agree that adaptation is unavoidable and mitigation alone is not sufficient to address climate change (Knight & Harrison, 2013; Berrang-Ford, Pearce, & Ford, 2015; IPCC, 2018). Climate change effects are regarded as more serious in developing countries given their low adaptive capacity which relates to their socio-economic and technological development conditions (Bhave, Conway, Dessai, & Stainforth, 2016). These countries may also have the mindset that they are the ‘victim’ of climate change rather than the ‘offender’ (Rübbelke, 2011; Page, 2008). This has led to a focus on the effect over the cause of climate change. Additionally, adaptation creates multiple benefits in developing countries especially when CCA is linked to DRR (Fankhauser & Burton, 2011) (e.g. seawall building, coastal afforestation). However, after 2020 when the Paris Agreement takes effect, developing country parties to the UNFCCC like Vietnam are required to deal with both adaptation and mitigation (Okereke & Coventry, 2016).

3.4. Climate Change in the Coastal Context

As noted in chapter one, in this research the context where CCA policy implementation is examined is in coastal zones in Vietnam. Therefore, this section discusses coastal management, the impacts of climate change in the coastal zones and coastal adaptation to address coastal vulnerability. Coastal governance deals with a number of coastal issues including the impacts of climate change. There is a degree of overlap between coastal governance and climate change governance when the context for studying CCA policy implementation and governance is the coastal setting.

3.4.1. Coastal zone and coastal management

The coastal zone is a region where the dynamic interaction between sea and land processes occurs. It

is a complex system, continually changing, resource-rich and disaster-prone. The extent of the coastal zone differs according to socio-economic, political, administrative, geographical and ecological considerations of countries and regions within a country. There are therefore no precise boundaries of coastal zones, the limits extend to the sea and the land as far as required by the objectives of the management strategy (Sekhar, 2005).

Policies relating to coastal management tend to be fragmented into a large number of sectoral policies addressing different coastal problems such as disaster, tourism, and marine protected areas. Coastal management has also tended to evolve in isolation from socio-economic development planning (Sekhar, 2005). There is often a lack of integration of coastal management in national development processes. Coastal zone management decisions also do not always give equal importance to all sectors involved in the decisions (Celliers, Colenbrander, Breetzke & Oelofse, 2015; Rempis, Alexandrakis, Tsilimigkas, & Kampanis, 2018). This can create inter-sectoral tensions as many coastal management issues cut across sectors. The conventional approach of large autonomous institutions dealing with separate activities is not typically sufficient for solving complex problems in the coastal zones and often produces conflicts and results in a proliferation of plans and regulations (Forst, 2009). These shortcomings lead to the introduction and application of integrated coastal management (ICM) (Stepanova, 2015).

ICM takes different forms depending on the context, but basically it focuses on facilitating sustainable coastal resource exploitation and management by an ongoing process of policy development and implementation, institutional coordination and education. There appears to be clear consensus that ICM represents a continuous and dynamic decision-making practice. ICM is designed to address the fragmentation of single sectoral management and the lack of coordination between different levels of government (Christie, 2005; Stepanova, 2015). In ICM the word 'integrated' refers to both the horizontal and vertical coordination of actors whose actions largely influence coastal resources and environments. Vertical integration assembles institutions within the same sector at the national and sub-national levels. Horizontal integration engages relevant sectors at the same administrative level to facilitate collaboration of competing interests in management. Recognising and understanding these horizontal and vertical dimensions offer insight into the potential constraints and effectiveness of coastal governance (Ernoul & Wardell-Johnson, 2013). The concept of ICM therefore shares some common elements with the concepts of MLG and CCA mainstreaming (see chapters two and three).

3.4.2. Coastal climate change impact and vulnerability

Climate change may cause significant impacts on the physical, socio-economic and ecological environments of the coastal zones including coastal cities and towns, especially on the poor and vulnerable groups in these localities (Celliers et al., 2013; IPCC, 2019). The main climate change effects on the coastal zone will be due to increasing sea levels which, in combination with higher magnitude storm events, will create change in erosion and sedimentation's patterns, higher risk of

flooding, and change in the distribution and types of coastal habitats. The shoreline has always been changing by erosion and other natural processes but climate change may exaggerate these problems (Hadley, 2009).

The IPCC has long focussed on the vulnerability of coastal areas to climate change. The First Assessment Report (AR1) of the IPCC stated that populated coastal zones are becoming more and more vulnerable to sea level rise and other climate change related impacts (saltwater intrusion, erosion, increased storm frequency and intensity) with even a small rise in sea level having serious adverse effects (IPCC, 1990). In the latest report in 2014 (AR5), the IPCC reiterated that coastal systems and lowlands will increasingly confront adverse climate change impacts such as flooding and erosion. The exposure of people and assets to coastal hazards continues to grow and the trend may not slow down in the foreseeable future given long-term thermal expansion of the oceans. By 2100 and in the absence of proactive adaptation measures, millions of coastal dwellers will be impacted by coastal flooding and erosion, and be displaced owing to land loss; the most vulnerable regions are in East, Southeast and South Asia, including Vietnam (IPCC, 2014, 2019; Kulp & Strauss, 2019).

Analysis of climate change impacts on the coastal zones are difficult to separate from human-related interventions (e.g. coastal management). Therefore, a comprehensive assessment of coastal climate change has to be placed in the context of human-induced changes (IPCC, 2014).

3.4.3. Coastal adaptation

Coastal adaptation refers to adaptation measures that reduce coastal climate change vulnerability and is a process of problem framing, identifying options, implementation, monitoring and evaluation. There are three coastal adaptation strategies including retreat, accommodation and protection. Protection focuses on advancing or holding existing defence lines through various measures such as land claim, construction of sea dikes and storm surge barriers. Accommodation is obtained by enhancing flexibility, flood proofing and resistance, flood hazard mapping and the deployment of early warning systems. Retreat options allow wetlands to move inland, coastline setbacks, and managed conversion such as the creation of an intertidal habitat by breaching or removing coastal defences. This classification is widely applied in both developed and developing worlds. Coastal adaptation is usually not implemented as a stand-alone program but in the environment of existing policies and practice such as ICM, coastal forest development and disaster risk reduction (DRR) (IPCC, 2014).

There is a number of studies on the interplay between ICM and coastal adaptation. The work of Vellinga and Klein (1993) is seen as seminal with the authors stating that action to reduce vulnerability (adaptation) should be taken within the context of ICM planning. Long-term planning for coastal adaptation to climate change requires integration in existing short-term plans regarding coastal management. Vulnerability assessment is an essential starting point for response strategies, including

ICM (IPCC, 1990, 1995, 2001, 2007, 2014; Tobey et al., 2010; Falaleeva et al., 2011; Celliers et al., 2013; O'Mahony, Gray, Gault & Cummins, 2015).

Institutional factors are crucial in CCA including coastal adaptation. Identifying adaptation options and putting them into effect is an iterative process involving complex interactions among decisions made by various actors at various levels, and in the context of other problems, existing policies, conflicting goals and different governance structures (Few, Brown & Tompkins, 2007; Urwin & Jordan, 2008; Hinkel et al., 2010). Neglecting this situation may impede or mislead adaptation decisions and implementation. In fact, the role of institutions in coastal CCA remains under-researched, especially in the developing world (IPCC, 2014).

Constraints to coastal adaptation may include insufficient finance for the formulation and implementation of adaptation policies, lack of locally relevant information and political commitments. These macro barriers do not act in isolation. Therefore, it is challenging to anticipate which barriers matter most in any specific case but instead various constraints should be taken into account for effective adaptation. Some obstructions may emerge from the interplays among policy fields, existing laws, and the consequences of past decisions. Nicholson-Cole and O'Riordan (2009) identified key factors inhibiting coastal adaptation in Eastern England, including a lack of cross-sector coordination, stakeholders having conflict goals, changing risks and uncertainties. Studying coastal CCA, Kettle (2012) compiled a list of barriers to coastal adaptation such as inadequate data, information, and human and financial resources; the inability to change in response to new information; rigid institutions that create 'lock in' circumstances; perceptions of risk; absence of leadership; and scale mismatches. These barriers however also exist for non-coastal adaptation (Burch, 2010; Phuong et al., 2018).

The uncertainties of climate and socio-economic changes influence coastal CCA planning. The rate, severity, and range of future changes in temperature, sea level, storms, and precipitation regimes remains uncertain (Hallegatte, 2009). Changes in coastal management policies, demographic factors, economic development and state budget availability further complicate coastal CCA planning (Moser, 2005). As noted above, the impacts of climate change in specific regions result from the interaction between climatic stimuli and non-climatic factors. Therefore, even with improvements in climate change science which lead to greater accuracy in climate change models, some of the uncertainties of the impacts of climate change on society remain high.

3.5. Climate Change Adaptation as a 'Wicked' Problem

Complex policy problems such as CCA and coastal management are considered as 'wicked' problems (Head, 2008; Australian Public Service Commission [APSC], 2012). Lazarus (2009) even views climate change as a 'super wicked problem'. Adaptation has been called a "wicked problem par excellence" (Termeer, Dewulf, & Breeman, 2013, p.27). The term 'wicked' in this context is used as

an issue highly resistant to resolution (Australian Public Service Commission, 2012). ‘Wicked’ issues typically cut across policy sectors and established levels of governance (MLG) (Rykkja et al., 2014).

The debate around ‘wicked’ problems started in the 1970s, since then there has been an increasing literature on ‘wicked’ problems, which are complicated, open-ended and intractable (Head, 2008). Rittel and Webber (1973), in their seminal work, claimed that most public policy problems are ‘wicked’. According to Rittel and Webber (1973), the main attributes of ‘wicked’ problems are: no definitive formulation of a ‘wicked’ problem; ‘wicked’ problems do not have a certain set of potential solutions; answers to ‘wicked’ problems are not true-or-false, but good-or-bad depending on stakeholders’ views; every ‘wicked’ problem can potentially be a symptom of another problem. Head (2008) states that the attraction of the ‘wicked’ problem notion is that it explains why many public policies create controversy, are unable to achieve their stated intentions, cause unexpected impacts, and/or are very challenging to coordinate and monitor their implementation.

The consideration of CCA as a ‘wicked’ problem is also based on the uncertainties regarding climate change science and its potential impacts. Koppenjan and Klijn (2004) claim that uncertainty is a key element nested in all the institutional and knowledge aspects of our efforts to address ‘wicked’ problems. Climate change is recognised not solely as an environmental issue but as a socio-economic, political phenomenon. As noted above, most economic sectors are likely to be affected by climate change directly or indirectly (Stern, 2006). Climate change is projected to threaten global food security and can indirectly pose risks of violent conflicts (IPCC, 2014). Responses to climate change requires the involvement of all relevant stakeholders. Climate change governance is therefore complex. There are also different perspectives and values with respect to CCA options and conflicts often emerge throughout CCA processes (Eriksen, Nightingale & Eakin, 2015). The combination of uncertainty, complexity and divergence attributes of CCA only re-affirms its wickedness.

The wicked characteristics of CCA also have other manifestations. Unlike mitigation, there is no adaptation baseline, how adaptation progress should be measured and reported is unclear (Ayers, 2010). CCA responsibility is fragmented across sectors (e.g. agriculture, water, coastal management, construction, transportation and so on). Additionally, adaptation means different things to different stakeholders (e.g. coastal managers, farmers, and planners) due to different perceptions of risk and they therefore have different measures to address impacts. In addition, climate change impacts and vulnerability are dynamic, they keep changing and accumulating as climate and society changes. The implication is that solutions should be flexible and adaptive. However, this can create substantial issues for policy makers. For example, a specific measure selected and implemented at one point in time may not be able to adapt to future climate change impacts. This is often the case of infrastructural CCA interventions which require a substantial length of time to get accomplished, e.g. dyke systems. By the time such interventions are in operation, the rate and magnitude of climate change impacts may go beyond their initial design capacities.

Finding solutions to climate change issues, as a ‘wicked’ problem, is a challenging task. As argued by Head (2008), traditional approaches (technical solutions, routine administrative solutions) to management and problem solving are seen as having failed to generate effective or successful long-term outcomes. The failures and unintended outcomes of public policy implementation are attributed to poor problem identification, solutions addressing symptoms instead of underlying causes, conflicts on solution options, and a weak knowledge base. Following Rittel and Webber (1973) and Schon and Rein (1994), Head (2008) re-affirms that given there is no single root cause of ‘wickedness’ then there is also no single best solution to tackling ‘wicked’ problems. Instead, problem framing is crucial since it often implies preferred solutions, e.g. hazard-based approach to adaptation leads to technological measures such as sea wall construction. According to Henstra (2017), in addressing CCA as a ‘wicked’ problem, solutions should focus on establishing vertical and horizontal policy cohesion by coordinating collective actions across government levels and among state and non-state actors.

Head (2008) recommends that understanding stakeholder’s perspectives, knowledge base availability, agreement on broad goals, and shared expectation development can help address the issues relating to uncertainty, complexity and value divergence aspects of ‘wicked’ problems such as CCA. The suggestions, which emphasise dialogue, participation and consultation, are also relevant for improving the efficiency of public policy processes, including policy formulation and implementation. This approach seems similar to the bottom-up perspective in public policy implementation studies and practice, which highlights the importance of on-the-ground actors and stakeholders (Hill & Hupe, 2002).

Governance failure and policy implementation deficiency can be attributed to the perception of policy-makers in treating ‘wicked’ problems as tame. Over-simplifying problems leads to delivery of the ‘wrong medicine’ and may even intensify problems, for example targeting symptoms rather than underlying causes of problems (Peters, 2015b). Instead, responses to ‘wicked’ problems need to be collaborative, innovative and flexible. Some authors debate the application of MLG to ‘wicked’ problems (Bache & Flinders, 2004), although this approach highlights the role of increasing integration, dependence between administrative levels and sectors, and public participation in the policy process (Rykkja et al., 2014; Frohlich & Knieling, 2013).

As a ‘wicked’ problem, adaptation can be constituted in a wider variety of different forms (Ford, Berrang-Ford, Lesnikowski, Barrera & Heymann, 2013), for example afforestation, urban drainage to coastal infrastructure, agricultural crop diversification, and so on. This multiple meaning makes CCA policy-making and implementation complicated. Evidence-based CCA policy-making and implementation may not bring about expected results due to the ‘wicked’ characteristics of adaptation. Given its characteristics policy-makers need to approach CCA differently from other conventional public problems (Stefania, Giuseppina & Margherita, 2014), as there is no one-size-fits-all solution to dealing with current and future climate change impacts. Therefore, working on no-regret and low-

regret solutions which do not solely depend on how the climate changes, is highly desirable.

3.6. Climate Change Adaptation Mainstreaming

Literature on the topic of mainstreaming is relatively rich (Urwin & Jordan, 2008; Meadowcroft, 2009; Ayers et al., 2014). In AR5 the IPCC (2014) reiterates that the integration of CCA into planning, including policy formulation, decision-making and implementation can promote synergies with development and natural disaster prevention. Klein et al. (2005), and Stern (2006) also argue that it is crucial that climate change considerations be properly integrated into development policy and climate change policy should be developed and implemented as part of sectoral policies.

3.6.1. Definition of mainstreaming

The mainstreaming of CCA into sectoral development policies is defined as

the process by which development policies, programmes and projects are (re)designed, (re)organised, and evaluated from the perspective of climate change mitigation and adaptation. It means assessing how they impact on the vulnerability of people and the sustainability of development pathways. Mainstreaming also implies involving all social actors (Gupta, 2010, p.77).

In the CCA literature, the terms mainstreaming and integration are used interchangeably. Beck, Kuhlicke and Gorg (2009), in referring to Underdal (1980) and Lafferty and Hovden (2003), define climate change policy integration as the incorporation of CCA and mitigation aims into all stages of the policy process of other non-climate sectoral policies. Beck et al. (2009) categorise two types of policy integration: horizontal and vertical. Horizontal integration is the cross-sectoral mainstreaming of climate change into other public policies. Vertical integration is the integration of climate change issues within a sector administrated by a ministry at different levels of government.

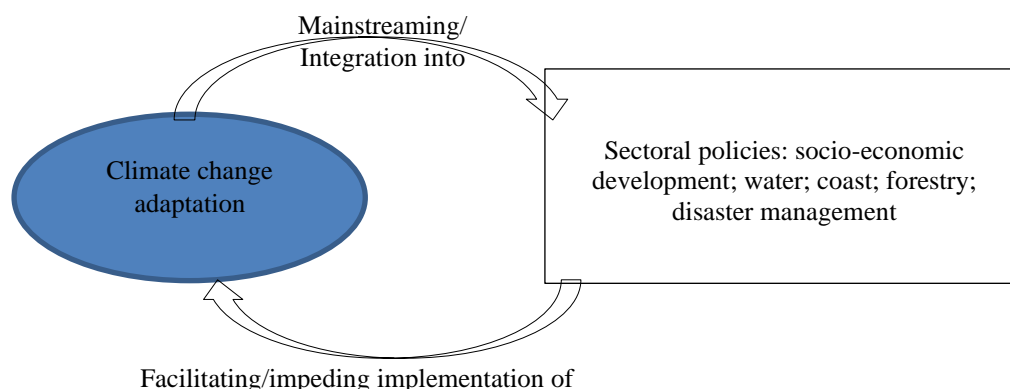


Figure 3.2: Mainstreaming climate change into sectoral policies (source: Author)

Mainstreaming means the integration of climate change concerns into relevant policies, plans and projects at both national and sub-national levels (USAID, 2009). It can be placed within the broader principles of environmental policy integration, which has a long history of research and practice globally (Nilsson & Nilsson, 2005). The term mainstreaming is similar to policy integration in environmental policy and sustainable development domains, in which environmental, socio-economic objectives must be incorporated to achieve sustainable development. This is also a call made in Agenda 21 adopted at the Earth Summit in Rio in 1992 (Lafferty & Hovden, 2003; Vogel & Henstra, 2015; Mickwitz & Kivimaa, 2007).

Knaepen (2013) classified three mainstreaming issues which are relevant to the present research, including mainstreaming as a financial issue (using funds from other sectors for CCA), mainstreaming as an awareness issue (as a cross-cutting issue it is important to mainstreaming CCA considerations in developmental sectors), and mainstreaming as an institutional issue (addressing problems of fragmented institutions and horizontal and vertical interaction).

3.6.2. Why mainstreaming?

The mainstreaming or integration of certain policy objectives into other sectoral policies is often required to improve public policy effectiveness (Mickwitz & Kivimaa, 2007). Lafferty (2004) argues that climate change policies can only be successful if they are integrated/mainstreamed into development plans of key socio-economic sectors (e.g. water, energy) and key regions (e.g. province, city). In research on the implementation of climate change related policies in Japan, Germany and Brazil, de Oliveira (2009) claims that the success of climate change policy implementation is connected to their integration to sectoral policies. Mainstreaming climate change considerations into relevant policies and programs is a measure to ensure the effectiveness and sustainability of climate change policy per se and sectoral policies in the context of increasing climate-related risks (USAID, 2009). Adger et al. (2005) argue that the mainstreaming of adaptation actions and policies into sectors facilitates effective CCA policy implementation in practice. Similarly, Burton, Huq, Lim, Pilifosova and Schipper (2002) claim that CCA can be part of various policy fields, and has to be integrated into other policies to ensure effectiveness. For instance, CCA in agriculture sector should be a part of broader agricultural policies; this approach applies to, forestry, water resources, coastal zone management and DRR.

Mainstreaming helps give adaptation the funding (mainstreaming as financial issue) and authority (mainstreaming as an institutional issue) to take place, especially given that the regulatory framework for climate change response is under-developed in many jurisdictions (Tobey et al., 2010). According to Klein et al. (2005), mainstreaming makes more effective use of resources than developing and implementing climate change policy separately. Urwin and Jordan (2008) argue that once climate change considerations are properly mainstreamed into relevant sectoral policies, the implementation of

these policies will then facilitate the implementation of climate change policy (figure 3.2). Without mainstreaming, some sectoral policies may constrain CCA policy implementation.

The managerial concerns of mainstreaming are also embedded in more theoretical issues. Mickwitz and Kivimaa (2007) argue that public policy issues are becoming more complex, there are more government agencies being established, the coordination among policies and agencies then becomes difficult and problematic, and policy integration becomes the response to the coordination problem (Benedikter, 2016).

3.6.3. How to mainstream

The mainstreaming of climate change policy into sectoral policies should be implemented at the highest level of government (national policies). The success of adaptation measures to climate change depends on the degree to which climate change considerations are integrated into the decision-making processes of other sectoral policies such as land use, water and forestry (Beck et al., 2009). Integration can be applied to both existing policies and new policies (Urwin & Jordan, 2008). Climate change policy per se should facilitate integration of adaptation and mitigation in sectoral policies (Klein et al., 2005). According to USAID (2009), there are three mainstreaming entry points including national, sectoral and local policy. In the case of Vietnam, this includes national social-economic development plans, water resource management plans, and provincial social-economic development plans. Fortier (2010) used the term ‘climate-proofing’ a measure or tool, to refer to the appraisal of the integration of climate change into development practice. The institutional mechanisms to enhance the mainstreaming of climate change into sectoral policies and development plans can be the establishment of an inter-ministerial steering committee directing mainstreaming process, or the adoption of formal regulations on integration, e.g. guiding procedures, which require the consideration of climate change response measures in the development plans of sectors susceptible to climate-related risks (Vogel & Henstra, 2015).

CCA mainstreaming is also achieved by incorporating adaptation into the mandates of bureaucracies and job descriptions of their staff (Burch, 2010; Vogel & Henstra, 2015). This approach also clearly relates to the notion of mainstreaming being regarded as an institutional issue (Knaepen, 2013).

3.6.4. Adaptation and development

Mainstreaming adaptation into development is a focus of the present research. In practice, adaptations occur in the context of socio-economic, demographic, information, technological, and scientific change. It is difficult to separate adaptation actions from actions driven by the above changes, especially socio-economic development (Adger et al., 2005). In the UNFCCC process, adaptation was initially referred to as an ecological concept however its scope has expanded to it being used as a synonym for development (Schipper, 2006). Indeed, Fankhauser and Burton (2011) argue that CCA

planning and practice will become increasingly inseparable from socio-economic decision-making, planning and development given the potential for economic development to help reduce vulnerability to climate change.

Adaptation and development are interrelated because climate change impacts threaten the achievement of development objectives (Knaepen, 2013). Developmental objectives, e.g. poverty reduction in developing countries, are a significant purpose of government actions. Climate change is therefore increasingly being framed as a development problem. For example, in the IPCC Third Assessment Report (TAR) (IPCC, 2001), the linkage between CCA and sustainable development was highlighted given the focus on the external risks caused by climate change impacts (impact/hazard-based) as well as the adaptability of natural and human systems (vulnerability-based). The latter emphasises the underlying causes of vulnerability, e.g. poverty, livelihood, and healthcare. These social factors are inherently embedded in any society regardless of the physical impacts of climate change. Additionally, there are many problems (stressors) that a given society confronts during its development process, e.g. water pollution, urban flooding and heat waves. In such cases climate change does not create 'new' problems but instead amplifies existing ones.

Given that the boundary between CCA and development is blurred the most effective way to reduce vulnerability to climate change including variability and extremes is through socio-economic development (Fankhauser & Burton, 2011). The solution is to mainstream CCA into development, thereby development investments are climate-resilient. There is a need to have an 'adaptation mindset' among policy-makers who sees CCA as an integrated part of development. For example, many development agencies and donors have been interested in incorporating adaptation into their development portfolios through mainstreaming which involves the integration of information, policies and solutions to address climate change impacts and vulnerability into ongoing developments (Ayers, 2010; Klein et al., 2005).

Mainstreaming is therefore a tool to get CCA into development. There are two mechanisms integrating CCA into development projects: (1) climate-proofing, i.e. evaluating the impacts of climate change on a project and then proposing solutions, (this approach not only applies for projects but also plans, strategies and even legal documents); and (2) development for adaptation, meaning climate change vulnerability will be addressed by focusing on sustainable development. The first mechanism leads to adaptation being seen as an addition to development, the second mechanism is adaptation as development (figure 3.3) (Ayers & Dodman, 2010). The former emphasises climate change impacts as the starting point of risk assessments however, it acknowledges the role of development in reducing vulnerability. The latter starts with vulnerability of people and communities with climate change impacts regarded as one group of many stressors.

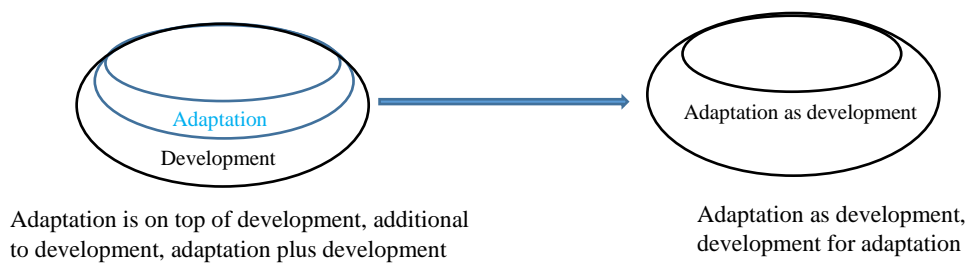


Figure 3.3: The two types of relationship between adaptation and development (source: Author)

Anthropogenic environmental changes that occur as consequences of development, such as deforestation, urbanisation, increased aquaculture production, hydro-power plant construction and so on, can interact with climate-related threats to exacerbate the vulnerability of populations to climate change impacts including variability and extremes. Such linkages between CCA and development highlights that only addressing physical climate-related hazards cannot in the long-term prepare populations for increasing impacts from climate change. Additionally, impact-based measures are costly and have long lead times. There is a need for an integrated approach to CCA, since stand-alone CCA measures do not work effectively to reduce vulnerability (Ayers & Dodman, 2010). In practice however, there are many constraints, such as institutional barriers, resources and fragmentation, which constrain policy actors to collaborate effectively to pursue integrated approaches.

3.6.5. Climate change adaptation, sustainable development, and climate-related disaster risk reduction

There are substantial linkages between CCA, DRR and efforts to achieve sustainable development. At the international level, there are three separate policy processes including the PA (its core is the Nationally Determined Contribution), the global Agenda 2030 (its core is the 17 Sustainable Development Goals (SDGs)) and the Sendai Framework for DRR (Roberts, Andrei, Huq & Flint, 2015; Kelman, 2017). All three frameworks were introduced in 2015. The UN Office for Disaster Risk Reduction (UNDRR) is the focal point of the Sendai Framework, the UNFCCC Secretariat in charge of the PA, while the Global Agenda 2030 is managed by the UN Department of Economic and Social Affairs (UNDESA). This separation at the international level is mirrored at the national level. In Vietnam, the three separate frameworks are assigned to three different ministries with their own history, interest, and management style (see chapter six for a further discussion).

CCA and climate-related DRR are inseparable in many cases in practice. Both CCA and DRR focus on reducing climate change vulnerability and impacts (Schipper, 2009). However, according to the IPCC (2012), CCA used for the purpose of DRR can reduce risks in the short term but may escalate exposure and vulnerability in the future, a phenomenon called maladaptation. Integrating CCA and DRR objectives to avoid overlap is therefore necessary for policy alignment however, confusing CCA

as DRR is potentially problematic. Although DRR and CCA are two separate policy frameworks and institutional systems at international and national levels, Mercer (2010) argues that CCA strategies when implemented at the community level are not necessarily different from DRR strategies. Nevertheless, such a situation only further highlights the potential complexity of CCA as a policy arena and the ‘slipperiness’ of CCA as a concept, as it can mean development or DRR or both, depending on the perspectives of different actors.

It appears that the interaction between CCA and sustainable development is often mutually reinforcing. Sustainable development cannot be achieved without due adaptation actions, and in turn many of the SDGs address the core drivers of climate change impacts and vulnerability. However, the interaction between CCA and DRR can be negative. Schipper (2009) noted one of the key differences between CCA and DRR is with respect to time horizons. The scope of CCA is also broader than DRR with CCA tending to be more proactive and anticipatory than DRR. From this approach CCA equals climate-related DRR plus (CCA = DRR+) (Schipper, 2009).

3.6.6. Barriers to mainstreaming

CCA is a new public issue, with researchers, policy-makers and practitioners still learning how to effectively mainstream CCA into sectoral policies. In practice, lack of financial, technical and human resources are reported as key barriers to mainstreaming (Kanepen, 2013). Institutional constraints, which are attributed to the functional fragmentation of government agencies and the lack of coordination between administrative levels also appear significant (Jordan & Lenschow, 2010). In addition, there is a potential misfit regarding temporal scale in mainstreaming CCA (long-term objectives) with sectoral development including DRR (short-term interests). Given such issues, it is perhaps not surprising that Pasquini, Cowling and Ziervogel (2013), and Wyborn and Dovers (2014) have a pessimistic perspective and conclude that the ideal of CCA mainstreaming is difficult to put into effect.

3.7. Multi-level Governance and Implementation of Climate Change Adaptation Policy

3.7.1. Multi-level governance of climate change adaptation

Garnaut (2008) states that there will be no, or limited success, in adaptation at a local, national or international level in the absence of good governance. Governance of climate change incorporates different organisational and regulatory forms across different stakeholders. It can be characterised as a broad range of coordination options concerning CCA. It is not a completely new concept but contains many parallels to existing governance approaches in other policy areas. Climate change governance involves the private sector, however, it requires governments to take an active role in creating changes supporting the deployment of adaptation policies. CCA governance occurs within a complex web of stakeholders, operating at various levels and with mutual influence (Meadowcroft, 2009; Frohlich &

Knieling, 2013).

The MLG of CCA means a course of adaptation action will involve decisions, actors, processes, institutional arrangements and mechanisms at multiple levels of governance (Moser, 2009). According to Gibson et al. (2000, p.221) “Phenomena occurring at any one level are affected by mechanisms occurring at the same level, and by levels below and above. Thus, research on global change processes should examine the world from a multilevel perspective”.

As noted above, climate change is not just an environmental/ecological issue, but a social, economic and political phenomenon. Additionally, some scholars suggest that climate change should be considered as a multi-level problem, in which different levels of decision-making are involved, rather than just conceiving it as a global problem (Bulkeley & Newell, 2015). This notion links to the concept and application of MLG as discussed in chapter two.

Betsill and Bulkeley (2006) argue that taking a multi-level perspective helps fully capture the socio-economic and political processes that influencing CCA governance. Problems like climate change cut across traditional jurisdictions and stretch across local to global levels (Termeer et al., 2010; Ostrom, 2010). Mitigation and adaptation measures negotiated at the global level, if not supported by a range of efforts at national and sub-national levels, may not work well. Sharing a similar view, Henstra (2017) also claims that CCA is a complex policy issue, in which knowledge, authority, and resources are divided among diverse state agencies at different government levels, many sectors, and a variety of non-state actors (Frohlic & Knieling, 2013). Significantly, the multi-level nature of CCA governance is explicitly stated in the PA in which parties agreed that various levels of the state such as local, subnational, national, regional, and international need to be involved in CCA governance, while municipalities, local communities, indigenous peoples, enterprises, and civil society are all important in CCA.

3.7.2. Climate change adaptation policy

Climate change is one of various public issues managed by national governments. It is the constitutional mandate of central (and local) government agencies to address climate change related impacts, to protect their citizens. CCA requires knowledge, technology, finance investments, planning, and coordination, which go beyond the capacity of people and firms. Autonomous adaptations confront deficits, behaviour barriers and market failures, which limit their effectiveness. Therefore, the involvement of governments through public policy intervention is necessary. Additionally, international agreements (e.g. the UNFCCC and PA) hold national governments accountable for domestic actions on climate change, including adaptation. The above are rationales for the need of government intervention in CCA. Once governments are involved, their policies have three main roles: (1) creating an enabling policy environment so that CCA actions can be mandated and facilitated by the public and private sectors; (2) providing public goods and services to citizens, e.g. coastal flood

defences, climate and weather information (warning and forecasting); and (3) redistributing public resources, especially to support vulnerable groups (Fankhauser & Soare, 2013).

Climate change policy should have at least the characteristics of public policy as defined in chapter two. However, 'climate change' per se brings additional attributes which make CCA policy implementation process, to some extent, different from other public policies such as education or forest protection. Climate change policies are considered as a set of interventions by governments to minimise the impacts of climate change (Garnaut, 2008). They are characterised by policy targets, instruments to achieve these targets, and the time and place that these climate change policy instruments are conducted (Kriegler et al., 2014). According to Burton et al. (2002, p.146), "[c]limate adaptation policy refers to actions taken by governments including legislation, regulations and incentives to mandate or facilitate changes in socio-economic systems aimed at reducing vulnerability to climate change, including climate variability and extremes". While Dovers and Hezri (2010) refer to adaptation policy as the means to act. In this regard, adaptation policy may include climate change strategies, action plans or programs.

There are many factors influencing CCA policy-makers such as the uncertainty of climate change, self-interest, political power, institutional arrangements, resource availability, and history (path dependence). With respect to uncertainty, i.e. the probability of climate change, the key question is will climate change happen? If the framing of CCA policy is impact-based then the likelihood of climate change is important. However, if the underlying vulnerability is of interest then it does not matter if climate change happens or not. Measures to address poverty and ill-health do not depend on the external climate change threats. In this case, according to Dessai and Hulme (2004), the probabilities of climate change are irrelevant for CCA policy.

The two dimensions of climate change vulnerability all inform CCA policy. Physical vulnerability is seen as a top-down approach, based on climate change scenarios to identify long-term impacts and vulnerability. Social vulnerability is regarded as bottom-up, starting with current properties of society, socio-economic development, and institutional arrangements to identify adaptive capacity (Dessai & Hulme, 2004). It is not about distant future impacts but current and even past developmental decisions that contribute to current socio-economic conditions. Consequently, there are two broad approaches to adaptation and adaptation policy. One focuses on climate-related hazards, the other targets socio-economic factors that determine how hazards create effects on a given system.

According to Henstra (2017), government intervention in CCA appears limited as it is strongly influenced by public demand. The political commitment to allocating resources to CCA is therefore not high. Meanwhile the costs of adaptation are often large and immediate with the benefits unclear and long-term. This creates challenges for adaptation investment since policy-makers have to deal with many other pressing problems such as healthcare, transport or disaster management with which CCA has to compete for resources. The target population of CCA policy is also diverse, complex, and

fragmented, which makes the implementation process challenging (Dupuis & Knoepfel, 2013; Henstra, 2016).

As a result governments ideally need to define or redefine national interests considering climate change risks and establish a clear strategic policy framework. Both mitigation and adaptation have been targeted by national and local governments but they can have substantially different priorities (Meadowcroft, 2009). In respect of adaptation policy framework establishment, Dupuis and Knoepfel (2013) categorised three approaches to designing adaptation policies, namely CCA, climate variability adaptation and vulnerability-centred adaptation (VCA). The first two approaches are biophysical impact-focused. Based on the VCA lens, the goal of adaptation policy is not constrained to deal with climate stimuli but includes vulnerability reduction and sustainable development, a combination discussed above. VCA means that adaptation is driven by vulnerability with adaptation measures designed to reduce vulnerability, an approach which is claimed to provide significant, measurable benefits (Nelson, 2009; O'Brien, Eriksen, Nygaard, & Schjolden, 2007).

According to Burton et al. (2002), national governments seeking to develop CCA policy should start by assessing the current level of vulnerability including its variability and extremes, and the means that existing policies and development practice work to reduce vulnerability. This viewpoint is shared by Giddens (2009), who argues that countries should map their vulnerability before taking adaptation actions. These suggestions back the VCA approach with respect to adaptation to reduce vulnerability and recognise that the assessment of vulnerability is a pre-requisite for adaptation policy formulation and implementation.

Nevertheless, the lack of a specific definition of adaptation poses a significant constraint to furthering adaptation policy (Schipper, 2006; Ayers, 2010). The two dimensions of vulnerability and the two approaches to adaptation (impact-based and development-based) highlight the complexity in developing state CCA policy. What are the adaptation policies made by governments? Are they easy to identify? Are they merged into other policies? Are CCA policy objectives vague or specific? These are some of the essential questions in the present research.

Governments around the world have responded to impacts of climate change through CCA policies (Vogel & Henstra, 2015). Adaptation has been placed on government agendas in many countries. Of course, in some cases the government response to climate change impacts can be inaction (do nothing), irrelevant action (do something even if it does not address climate change impacts and vulnerability), and/or maladaptation (adapt to current change impacts but increasing long-term vulnerability). However, where policy action does occur implementation often appears limited with concrete adaptation actions lagging behind policy developments (Biesbroek et al., 2010; Keskitalo, 2010; Ford, Berrang-Ford & Paterson, 2011). International and national CCA policies exist but the translation of these policies into actions is limited, recognising the need to better understand the problem of 'implementation deficit' (Pressman & Wildavsky, 1973).

3.7.3. The evolution of adaptation in international climate change policy

There are currently three main international climate change frameworks, the UNFCCC (1992), Kyoto Protocol (1996), and the PA (2015). The first two regimes focus significantly on mitigating GHGs emissions, the most recent treats adaptation as important as mitigation.

In the early 1990s, with the introduction of the UNFCCC, climate change policy was primarily focused on mitigation policy, adaptation was very much a secondary consideration. A mitigation bias was also reflected in the early works of the IPCC, which had an emphasis on limiting emissions. However, in 2001, with the Marrakesh Accords agreed at the 7th Conference of the Parties (COP7), adaptation policy started to gain the attention of governments and scientists and the status of adaption in the international climate change regime has changed drastically since then (Schipper, 2006).

The UNFCCC is mitigation-focused. The word ‘adaptation’ was used only five times in the UNFCCC’s original text, mostly in Article 4. Climate change policy researchers (Ayers, 2010) claim that the UNFCCC promotes an impacts-based approach to adaptation rather than VCA. The former targets climate change stimuli such as extreme weather events, the latter focusses on the drivers of climate change vulnerability (Burton et al., 2002; Schipper, 2006; Ayers, 2010). According to Schipper (2006), the lack of adaptation in the UNFCCC could reflect a political intention of developed countries seeking to avoid liability and financial responsibility associated with adaptations in developing countries. Another explanation is that in the early 1990s, there was limited scientific evidence of the rate and magnitude of climate change impacts and it was believed that mitigation would be sufficient to prevent ‘dangerous’ climate change.

There are three milestones in respect of the evolution of the adaptation regime under the UNFCCC implementation process:

1. In 2001/COP7, the national adaptation programmes of action (NAPAs) was initiated for least developed countries (LDCs). The NAPAs of the LDCs would identify priority activities that respond to their urgent and immediate needs to adapt to climate change. There are 49 countries in the LDCs group, as of 2013 they all submitted their NAPAs.
2. In 2010/COP16, the Cancun Adaptation Framework (CAF) was created. Since 2010, national adaptation plan (NAP) formulation and implementation have been given priority under the UNFCCC. Under the Cancun Adaptation Framework 2010, the UNFCCC parties established the Adaptation Committee (AC) to promote the implementation of action on adaptation under the Convention in developing country parties.
3. In 2015/COP21, the PA was adopted, since then the international climate change regime represents an equal attention to adaptation and mitigation.

The evolution of CCA over time has two main aspects. First, it is about the increasing role of adaptation in comparison to mitigation in the international climate change policy framework. The PA in 2015 was a milestone in efforts to have adaptation seen as equally important in policy terms as mitigation. Second, there is also an evolution within CCA per se. Lesnikowski et al. (2017) discussed the second type of evolution of CCA through IPCC reports and the Conference of the Parties (COPs) of the UNFCCC. From the TAR in 2001, to the Fourth Assessment Report (AR4) in 2007 (IPCC, 2007) and the Fifth Assessment Report (AR5) in 2014 (IPCC, 2014), there has been a shift from an issue of biophysical exposure to broad attention to vulnerability processes. In respect of the first type of CCA evolution, it is noted that in contrast to the role of CCA in climate change policy, adaptation in the global South has received more attention than mitigation, mostly because of the relationship of CCA to disaster risks and development (Okereke & Coventry, 2016).

3.7.4. Adaptation planning and implementation

The increase of actual impacts of climate change combined with the expansion of scientific research, progress in international climate change negotiations and efforts by international development agencies, have facilitated the development and implementation of climate change and CCA legislation, strategies, plans, programs, and projects in both developed and developing countries (Biesbroek, Swart & Van der Knaap, 2009; Berrang-Ford et al., 2011). The CCA planning process is diverse across and within countries owing to differences in levels of development, resources, information, institutional arrangements, values, priorities, and so on. Adaptation planning is therefore context-specific (Mimura et al., 2014). In respect of the content of CCA plans, there has been a strong focus on measures dealing with the physical impacts of climate change rather than the underlying causes of vulnerability (Ribot, 2011).

Implementing what? The ‘what’ of implementation is the output of the adaptation planning process, which can be an action plan, a strategy or a program. Mimura et al. (2014) defines adaptation strategy as a general action plan. A strategy may include policies and measures to address impacts of climate change. In the present research, CCA policy is a broad concept, expressed in the forms of legal documents, strategies, plans, or programs. A strategy is broader than a plan with respect to content and time horizons. The order of scope being strategy, plan, program, project and task (Cash et al., 2006).

Countries, cities and organisations have employed different procedures and methods in planning and implementing CCA however, they can be grouped into top-down and bottom-up approaches. The former starts with the identification of climate change scenarios followed by assessments of impacts and vulnerability to develop CCA strategies and plans. The latter is need-driven and begins with assessing the current socio-economic situation and targets the most vulnerable people and groups (Mimura et al., 2014). The combination of the two approaches, to improve the effectiveness of CCA actions, are recommended by many authors (Hallegatte, 2009; Urwin & Jordan, 2008; Preston, Dow & Berkhout, 2013). The top-down and bottom-up approaches to CCA implementation process also

reflect what occurs within other policy fields and the broader policy implementation literature (as discussed in chapter two).

Competition for financial resources as well as the relative priority for CCA within the policy agenda significantly influences the implementation of climate change policies (Fankhauser & Burton, 2011). Practice shows that there are two types of public policy in relation to CCA, policies *of/on* CCA, such as a NAP, and policies *for* CCA, such as public finance management regulations or a horizontal coordination mechanism between government ministries. The latter creates an enabling policy environment for CCA policy to be effectively implemented. What is currently unknown is if the development of policies *for* CCA or sections affected by climate change are also seen as part of the CCA policy implementation process? For example, under the Support Program to Respond to Climate Change (SP-RCC) in Vietnam, there is a task to develop a national strategy on integrated coastal management (GoV, 2013). In this case, the formulation and adoption of ICM strategy could potentially be framed as the implementation of CCA policy.

Natural and human systems including climate systems and climate change are dynamic, they change over time affecting adaptation strategy. However, the policy dilemma is that infrastructural adaptations are a significant investment, especially in developing countries including Vietnam, with substantial short and long-term economic development. Any national CCA policy framework and implementation model may therefore need to be able to integrate soft and hard adaptations as well as financial strategies to support them.

3.7.5. Finance for climate change adaptation implementation

Implementing organisations should have adequate resources, clear functions, and authority to execute policies (Pressman & Wildavsky, 1973). Similar to other public policy issues, CCA implementation requires financial resources to be allocated along with appropriate authority and capacity (Corfee-Morlot et al., 2009).

Under the UNFCCC framework, several financial funds help facilitate adaptations: The Least Developed Countries Fund (LDCF), the Special Climate Change Fund (SCCF), and the Kyoto Protocol Adaptation Fund (AF) (Ayers & Huq, 2009). The Global Environment Facility (GEF) is the financial mechanism of the UNFCCC for transferring funds from developed to developing country parties (Ayers, 2010). Another important fund is the Green Climate Fund (GCF), which was set up in 2010 as part of the UNFCCC's financial mechanism however, it has only been in operation since 2015. The GCF focuses on both mitigation and adaptation, and is the main financial source for the implementation of the PA (Cui & Huang, 2018). Outside the UNFCCC umbrella, there is another set of financial players which include the multilateral development banks such as the World Bank Group (WB) and the Asian Development Bank (ADB). These 'development' banks fund adaptations as part of integrating adaptation into development (Fankhauser & Burton, 2011). The potential for CCA

mainstreaming can therefore be influenced by financial and development funding agencies (Fankhauser & Burton, 2011).

According to Mimura et al. (2014), adaptation finance can be mobilised from public, private and international sources. State budgets are mainly used to fund adaptation projects which relate to infrastructure development, where returns on investments are often low, less attractive to business. This is in line with research by Buchner, Falconer, Hervé-Mignucci, Trabacchi and Brinkman (2011), who found that about 90% of CCA financing came from state budgets. The situation in developing countries may not be different as public resources are often limited. The availability of international funding support therefore potentially influences decisions on the selection of projects as part of adaptation policy.

To address the lack of adaptation funds, national governments can develop and implement policies and mechanisms that incentivise the private sector to engage with CCA (Lesnikowski et al., 2017), for example policy *for* CCA. The public-private partnership (PPP) is recognised as a promising mechanism (Mimura et al., 2014) and encouraging private sector participation in funding CCA is also in line with the idea of involving non-state actors in CCA MLG. However, the PPP approach is not without criticism and it has been regarded as being responsible for expensive and inefficient investment in public services, private profits overweighting public interests, and lack of transparency due to commercial confidentiality (Leigland, 2018).

Broadly, there are two approaches to financing CCA. First, CCA as an addition to development, in which the CCA fund only covers the CCA component of a development project. Second, CCA as development. Funding such climate-resilient developments is funding adaptation. The implication of the second approach is that there is no need for separate CCA plans but in every socio-economic and sectoral development plans CCA considerations must be mainstreamed. However, CCA plans at the strategic level remains important to guide and coordinate CCA actions in sectors and localities. Nevertheless, according to Rosendo et al. (2018), funds have been mostly allocated to develop strategies and plans to address climate change impacts rather than to implement the planned measures and projects. That is why some authors claim that CCA implementation has been lagging behind the development of policy (Biesbroek et al., 2010; Keskitalo, 2010; Ford et al., 2011).

The global CCA finance situation shows a lack of investment for CCA, especially if CCA is framed as physical impact-based or ‘hard’ adaptation (Fankhauser, 2010). Shifting focus to ‘soft’ adaptation may help address this funding shortage (Lindegaard, 2013) along with governments creating more favourable conditions for private sector investment in CCA. Overall, there is a need to develop CCA policy at the strategic level however, the supporting policies or mechanisms which facilitate CCA policy implementation, including coordination and research, are critical if intentions are to be realised.

3.7.6. Barriers to adaptation policy implementation

The barriers to public policy implementation (section 2.3.7) and barriers to CCA and mainstreaming (discussed above) have several commonalities. A significant implementation deficit or gap between policy and action exists in CCA policy implementation. Dupuis and Knoepfel (2013) argue that CCA policies have been made but concrete measures lag behind. Several constraints have been identified in the literature including the uncertainty of scientific knowledge that prevents decision making, the cost-benefit ratio of CCA measures which does not always trigger public action, the lack of financial resources, public agencies lack of capacity to develop and implement CCA policy and social limits that might prevent adaptation responses (Wilby & Dessai, 2010; Adger et al., 2009). Other barriers that have been identified include lack of political interest (Anguelovski & Carmin, 2011), lack of institutional coordination (Moser et al., 2010), inadequate financial and human resources (Bryan, Deressa, Gbetibouo & Ringler, 2009), lack of information and data (Ford et al., 2011), path dependency (Abel et al., 2011), and the widening science-policy gap relating to ‘wicked’ problems (Moser, 2010).

CCA policy action is also constrained by the non-binding nature of national policies which are ambiguous in their aims and provide limited guidance for assessing impacts, identifying and selecting CCA options, and defining roles and responsibilities of relevant agencies (Wise et al., 2014). The non-binding issue can be regarded as an institutional barrier. This situation also relates to the policy instruments that governments choose to implement CCA policy. For example, CAA actions such as soft regulations, economic incentives and information are usually not legislatively stipulated.

According to Juhola (2016), MLG processes and structures may also create barriers for implementation. However, this raises the question as to whether existing political and administrative systems hinder climate change policy implementation or not? For example, hierarchical, top-down governance may facilitate CCA policy implementation, especially in the context of lacking legally-binding regulations, without ‘orders’ from the ‘top’, local authorities might not take actions (Qi, Ma, Zhang & Li, 2008).

In relation to CCA policy implementation at the local level, Corfee-Morlot et al. (2009) state that obstacles to effective policy implementation include limited authority diffusion from national level, lack of resources, and low capacity levels of local bureaucracies and their staff. In addition, the fiscal, administrative and political issues of decentralisation of central state power to local government are highlighted by some authors as a barrier (Colfer, Dahal & Capistrano, 2012; Mukherjee & Howlett, 2016), a situation that is also relevant in the Vietnamese context (Anh, 2016).

Identifying barriers to CCA policy implementation is important however, ‘shopping lists’ are not helpful, and a key challenge for CCA policy research is to identify which barriers are likely to arise and in which contexts to inform solutions addressing them (Wise et al., 2014). Indeed, some authors

claim that knowledge, theories and conceptual frameworks from policy sciences have rarely been considered in explaining the political and institutional barriers to the CCA policy process (Dovers & Hezri, 2010, Dupuis & Knoepfel, 2013).

3.8. Chapter Summary

Adaptation is unavoidable. However, climate change is barely the sole or primary motivator for CCA actions. Extreme events are influential adaptation stimuli across countries (Berrang-Ford et al., 2015). It is important to identify what adaptations have been advocated and implemented in practice (to climate change or variability or extremes or even to non-climatic stimuli such as central executive orders).

Both physical and social dimensions of vulnerability inform adaptation policy. The two framings of vulnerability lead to two adaptation approaches including impact-based adaptation and development-based adaptation. These two framings of adaptation influence how governments intervene in CCA. In practice, depending on the specific contexts, one might be given priority over the other.

There is no agreed definition of adaptation. However, there are two main components in any definition of adaptation, ‘adjustment’ and ‘climatic stimuli’. The latter can be climate change, variability or extremes, the former is more abstract, as ‘adjustment’ can mean anything relating to dealing with climate-related threats. In practice (how adaptation is operationalised), ‘adaptation to what?’ depends on how vulnerability and impacts are understood. In the literature there is a broad consensus among the CCA research community that adaptation aims to reduce climate change impact and vulnerability, and that ‘adaptation to what’ depends on perceptions of climate change, impacts and vulnerability. As Adger et al. (2005, p.78) observed, except for designated CCA policies, plans and programs, “attributing adaptations to climate change is not a simple process”.

CCA is a process of MLG with top-down, bottom-up, sideways, outside-in, and inside-out interactions of policies, policy actors and stakeholders (Pelling, High, Dearing & Smith, 2008; Urwin & Jordan, 2008; Adger et al., 2009). The IPCC (2014) argues that MLG could even be an obstruction of successful CCA if there is inadequate coordination, as it consists of different regulatory, legal and institutional systems. Figure 3.4 is a prescriptive model showing how CCA *should be* implemented, regardless of country context. The framework will include the ‘Vietnamese’ elements in the next chapter.

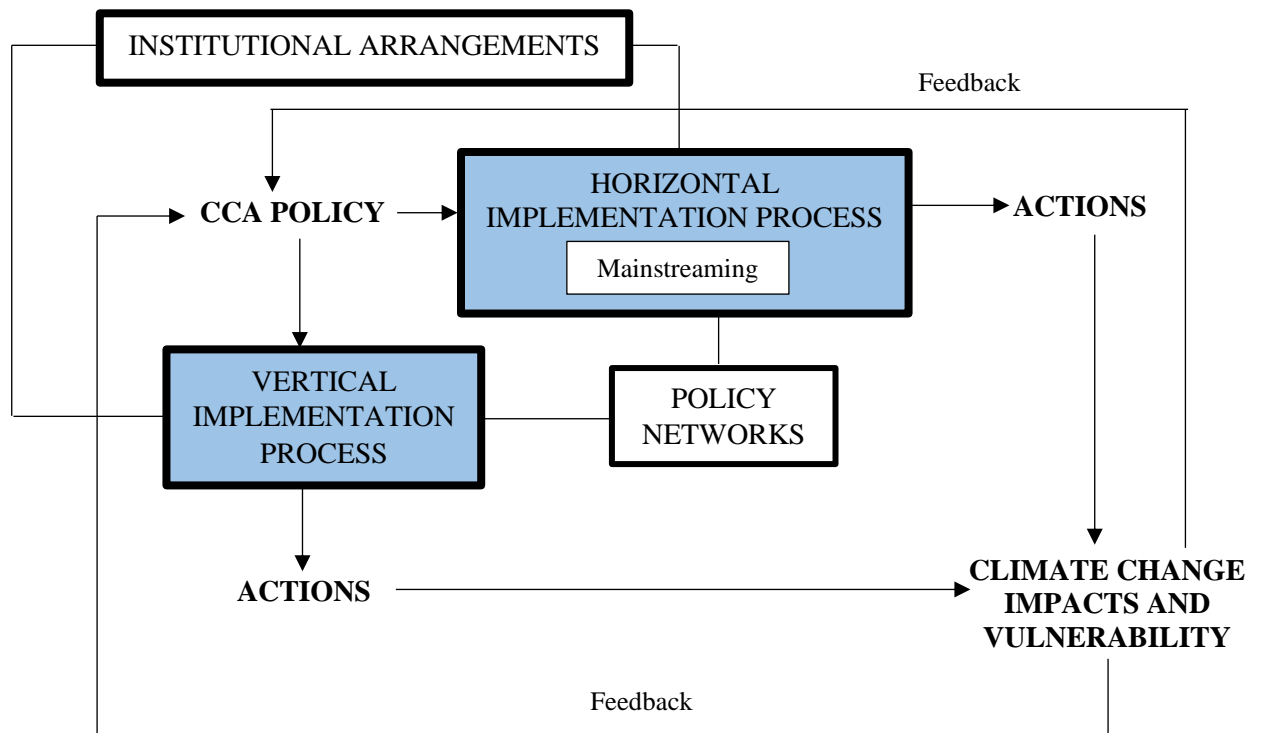


Figure 3.4: Conceptual framework-version 2 (source: Author)

CHAPTER 4:

VIETNAM - THE EMPIRICAL RESEARCH CONTEXT

4.1. Introduction

This chapter presents the context within which the investigation of climate change adaptation (CCA) policy implementation was conducted. It highlights the politics, government structures, public policy-making, policy implementation, and how public issues are governed in Vietnam. A brief description of climate change in Vietnam sets the scene for adaptation policy response. Following the discussion on climate change in the coastal context in the previous chapter, an overview of coastal management in Vietnam is provided. Previous studies on CCA in and about Vietnam are reviewed to identify what has been done and where research gaps exist. The chapter concludes with a conceptual framework used to examine CCA policy implementation in coastal Vietnam.

4.2. Geography and Socio-economic Development

Vietnam is located in Southeast Asia and borders China to the north, Laos and Cambodia to the west, and the Pacific Ocean to the east and south. Vietnam has a tropical monsoon climate. As its territory stretches along many latitudes and terrains, the differences in climate between regions are significant. The northern climate (e.g. the Red River Delta) has four seasons; spring, summer, autumn, and winter, while the southern climate (e.g. the Mekong River Delta) only has dry and rainy seasons (Ministry of Natural Resources and Environment [MONRE], 2019). Vietnam is characterised by a long coastline of over 3,200 km. It is therefore particularly sensitive to climate change related impacts such as sea level rise, drought, and tropical storms, especially because most of the country's large population centres are situated along the coast (Zimmer et al., 2015). With respect to key socio-economic indicators in 2016, the agriculture, forestry and fishing sectors contributed 16% to national GDP, industry and construction 33%, and services 41% respectively. Vietnam's population was 92.70 million with GDP per capital around USD 2,200, and the poverty rate was 5.8% of total population (General Statistics Office of Vietnam, 2017a). In 2017, the United Nations Development Program (UNDP) ranked Vietnam's human development index (HDI) 116th (the lowest was Niger ranked 189th) (UNDP, 2017).

4.3. Political System and Government Structure

4.3.1. Political system

Politics influences policy-making and implementation processes (Shanks et al., 2004). It is especially true in one party states like Vietnam and China (Bui, 2015). The present research does not examine Vietnamese politics however, it does provide a basic understanding of its political system to help better understand the public policy process. Vietnam has a homogenous political system (Gainsborough, 2013), although this research notes variability in CCA conceptualisation and implementation between and within different levels of governance, perhaps reflecting Gainsborough's observations on

decentralisation and heterogeneity in rethinking the Vietnamese state.

Vietnam is a unitary, authoritarian, state socialist, and one-party state. The Communist Party of Vietnam (CPV), also referred to as ‘the party’, is the only party allowed to involve in Vietnamese politics, as stipulated in the current Constitution of Vietnam (*Constitution of the Socialist Republic of Vietnam 2013*). London (2014) states that the CPV has been and will remain dominant in Vietnam’s politics for the foreseeable future. In the Vietnamese political system, the party sets the strategic orientations and policies and the state institutionalises these policies into regulations and legislation. The state administrative apparatus could be seen as an instrument of the party, as is expressed in the CPV slogan, “the party leads, the state implements, and the people inspect” (London, 2014, p.7). Public policy in Vietnam is therefore the political will of the ruling party as expressed in the political decisions of the state.

According to London (2014), authoritarian regimes are maintained by extensive state apparatus, legitimated through procedure and coercion. These political and administrative characteristics are mirrored in Vietnam, determining the machinery of the government and influencing public policy-making and implementation processes (Thayer, 2010). The party’s branches and cells are merged with all parts of the state and exist in all segments of society. It means the governance of public issues in Vietnam has to deal with the party-state-society relationship.

The relationship between the party and state in Vietnam attracts considerable research in political science and public administration (Shanks et al., 2004; Thayer, 2010; London, 2014; Bui, 2015). In practice, there is an increasing demand for a clearer separation between the role of the party (party apparatuses) and the role of the state (government agencies) in governing the society. The overlap in governance processes between CPV and the state in Vietnam is profound (Shanks et al., 2004). The party’s doctrine states that the party ‘leads’ and the state ‘manages’, but in reality the party often controls and intervenes in this ‘management’ process (Thayer, 2010). The party has direct and indirect involvement in the activities of state agencies. Most senior government officials at national and local levels are members of the party. The party exercises close control over the political careers of all senior government officials (Painter, 2003). Additionally, the CPV employs the democratic centralism principle which empowers its supreme, unquestionable leadership (Wescott, 2003). However, since 1986 with the start of the reforming process (*đổi mới*), there has been efforts in Vietnam to disentangle the overlap between the party and state, the process that Thayer (2010, p.424) termed as “transition from a ‘hard authoritarian’ to a ‘soft authoritarian’ state”, although clear evidence of liberalisation though democratisation remains limited.

The Confucian tradition of statecraft and the socialist state model in Vietnam influences the processes of governing, policy-making and implementation of public issues (Shanks et al., 2004). The socialist and Confucian ethics and values, for example, of equalism/harmony influences the governance of public issues including climate change. Policy-makers tend to allocate public resources equally among

localities regardless of different circumstances. The fragmented public capital investment problem in sectors and provinces in Vietnam can partly be explained by the Confucianism and socialism ideologies (Benedikter, 2016; Nguyen, 2016).

The socialist-oriented market economy pathway that Vietnam is following is the fusing of capitalism and state socialism, turning Vietnam to a post-socialist country with evidence of neoliberal governance (e.g. market economy and privatisation). For example, Bui (2015) observed that there are some services traditionally only provided by public agencies that have been transferred partly to private sector since 1986, when Vietnam started its economic, administrative, and political reform process. Bui (2015) argues that the party-states in China and Vietnam have started to pursue a post-socialist governance mode, which is in line with the move from neoliberalism towards post-neoliberalism in some capitalist states. In the Vietnamese context, this transition process confronts the relationship between socialism and market economy. However, as Thayer (2010) states, the debate over the compatibility of socialism with a market economy has been obscured by the profound economic integration of Vietnam into the global economy.

According to Benedikter (2016), the CPV has remained the sole political power, with the state-centric governance model of Marxism-Leninism leading to the historical dominance of state-owned enterprises, and top-down policy-making, planning and implementation. Thayer (2010) argues that a Marxism-Leninism political ideology is not compatible with the market economy, leading to power abuse and corruption which hinders economic and administrative reform. Nevertheless, the legacy of Leninist state machinery remains a strong influence on public policy-making and implementation processes in contemporary Vietnam, reflected through command-and-control administration systems, target-oriented planning and inflexible top-down policy implementation (Reis, 2012). The legacy of Marxism-Leninism ideology, the centralisation of power is in contrast with the principle of multi-level governance (MLG), which highlights the diffusion of power upwards to international institutions, downwards to local governments and sideways to non-state actors, as well as its inherent pluralism.

4.3.2. Government structure

General knowledge of the government machinery, mandates of public agencies and their officials provide insights to understand policy-making and implementation processes (Hall & Jenkins, 1995). The classification of state administrative agencies by London (2014) is relevant to the present research. According to London (2014) there are two categories: executive agencies, such as the government at national level and people's committees at the local level; and functional agencies, ministries at national level, departments at provincial level, divisions at district level, and individual bureaucrats at commune level. Note that there are also representative bodies such as the National Assembly at the national level and people's councils at the local levels, mass organisations, and the CPV all involved in the policy process. However, policy implementation is largely governed by the administrative agencies.

The government extends its organisation vertically across four levels from national to provincial, district and commune. At each administrative level, there is an executive agency and some functional agencies charged with governing public issues such as education, environment, and tourism. Functional agencies are organised horizontally and vertically across three levels (the lowest level of government does not have functional agencies but an executive body: the Communal People's Committee) (London, 2014). Some authors classify the Vietnamese government system into two tiers, central and local governments, the latter comprising levels including provincial, district and commune (Anh, 2016; Shanks et al., 2004). Local government is administrated by 63 provinces and cities, with districts and communes nested in these. The commune is the lowest level of the GoV. The Vietnam's government organisational structure is illustrated in figure 4.1. According to Shanks et al. (2004), public policy implementation in Vietnam largely depends on the capacity and legitimacy of provincial and municipal governments (middle-level authority) to adapt to national policies, which influence policy interpretation and outcomes on the ground. This will be discussed further with respect to the selection of the two case studies used in research, Hai Phong city and Soc Trang province (see chapters seven and nine).

Despite streamlining and reforming efforts since 1986, the machinery of the GoV remains fragmented (Painter, 2005; Benedikter, 2016) and has mushroomed despite limited privatisation. According to Benedikter (2016), the fragmentation, disconnectedness, and inconsistency of public administration and governance in Vietnam could be attributed to poor arrangements of duties, overlapping mandates, and ministerial division and departmentalism. At the central level, ministries are in disharmony with each other, and local government performance is sometimes discrete from those at the centre. The growing number of public agencies also makes the coordination of decision-making, planning and policy implementation complex and challenging and it also leads to additional works in relation to reports, planning documents, meetings and workshops (Benedikter, 2016).

The GoV is the executive agency of the NA and has the authority to promulgate decrees, resolutions and decisions of nationwide effect, aiming to specify and enforce legal documents enacted by the NA. Being the top state administrative body, the GoV is responsible for managing all aspects of society, implementing domestic and foreign policies of the nation, and directing the operations of ministries and People's Committees at different levels.

The Prime Minister is the head of Government. Ministries are governmental agencies exercising the public management of their respective sectors nationwide. They are central functional bodies having specialised authority (each of them governs some sectors) and administering under the single-head regime. Ministers are members of the government who are answerable to the Prime Minister.

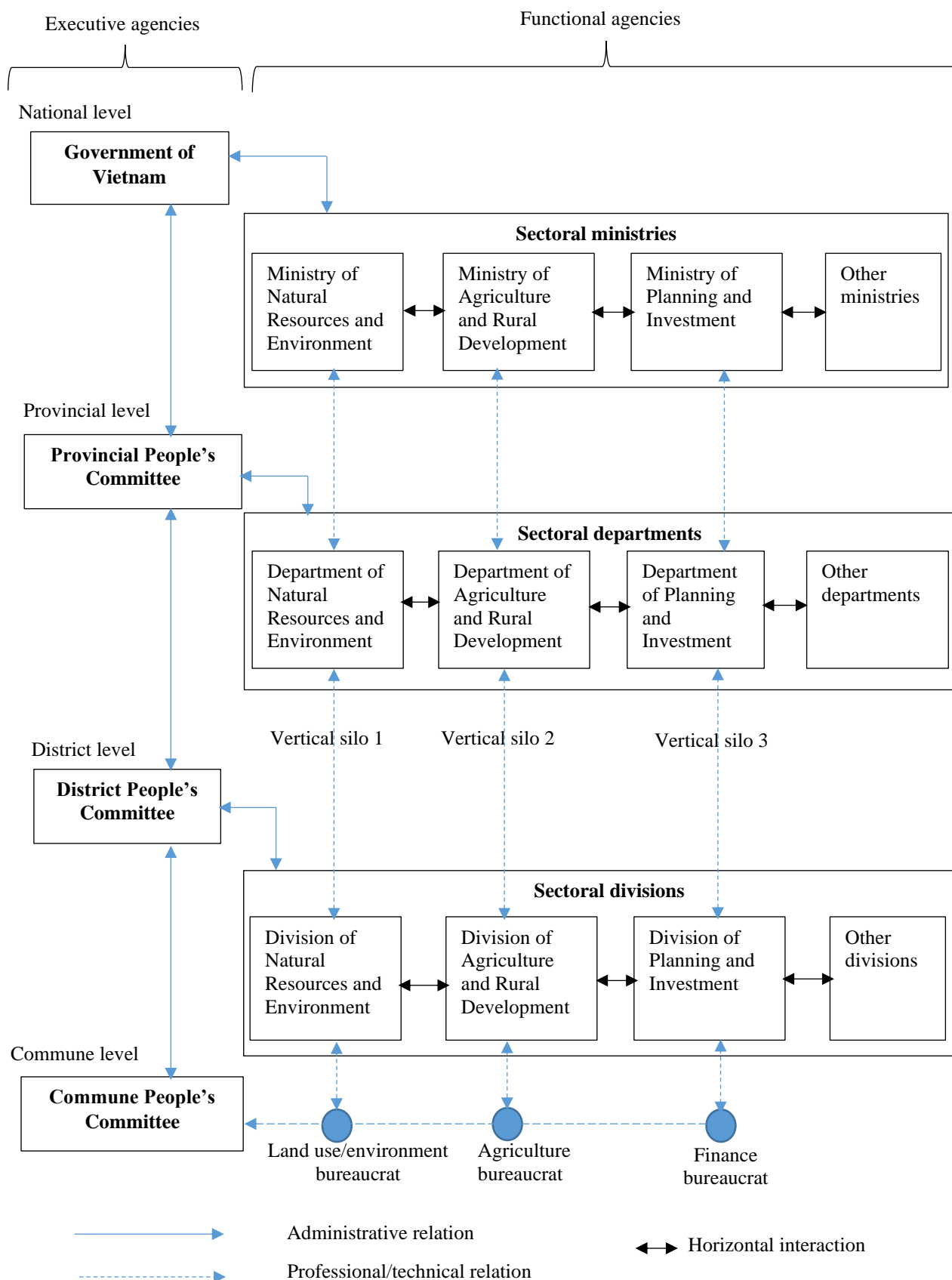


Figure 4.1: Vietnamese government structure (source: Author)

People's Committees operate at three levels (provincial, district and commune) and have the power to issue administrative decisions and deliver managerial acts in order to exercise executive power in localities and perform the function of public administration in all areas within their respective administrative divisions. Inferior People's Committees are subject to the leadership and direction of higher level executive agencies. The authority of People's Committees of the three levels are defined in the *Law on organisation of local government 2015*. The decentralisation of power reduced from 'top' to 'bottom', with the provincial level receiving more power than the district level which, in turn, has more power than the commune level. Provincial level departments and district-level divisions advise the respective Provincial People's Committees on specialised public issues in accordance with their mandates. They are functional agencies of the state at provincial and district level (London, 2014). In the current administrative system of Vietnam, the lowest level of state (commune) does not have functional agencies but individual cadres who are responsible for particular public sector areas, such as a finance cadre or an environment cadre.

Functional agencies at provincial and district levels (e.g. Department of Natural Resources and Environment (DONRE)) have dual reporting responsibilities to the people's committee/council and to central ministry (e.g. MONRE). Additionally, these functional agencies are held accountable by the party apparatus at the same level. This point is important in the policy process as in practice a provincial department often take actions in accordance to the administrative order from the provincial people's committee rather than the technical guideline from its higher functional agency, a ministry at the central level (Westcott, 2003).

The formal communication among public agencies is based on instructions, strategies, plans, programs, and reports circulating back and forth within the state machinery. Additionally, the flow of information is channelled through meetings, workshops and conferences, and a growing number of steering committees (Benedikter, 2016). Depending on specific programs and projects, the party, executive agencies and functional agencies may establish steering committees which are very prevalent in public policy implementation in Vietnam. These committees are ad-hoc, do not belong to the formal machinery of government but play an important role in coordinating policy actors (e.g. the National Climate Change Committee (NCCC)). Some will be dismissed upon project accomplishment however, some last as long as a formal public agency.

4.4. Public Policy Process in Vietnam

4.4.1. Public policy-making process in Vietnam

In Vietnam's politics and administration, public policy is officially defined in a legal document as directions and solutions of the state to resolve real-life problems to achieve particular development objectives (GoV, 2016a). There are three main state actors directly involved in formal policy-making processes including the CPV, the National Assembly of Vietnam (NA), and the GoV. Resolutions

approved by the CPV are strategic instructions for the NA and GoV to issue state policies. The NA passes laws and other specific legal documents based on the CPV's directives; then, the GoV develops strategies, plans and programs in various public sectors such as forestry, disaster management and climate change. Usually, the GoV tasks a ministry with preparing decisions and circulars to put policies into effect nationwide. Local governments will execute national policies within their jurisdictions and authorities (*Law on promulgation of legal document 2015*; Nguyen, 2017). In some cases, local governments have to develop action plans before taking concrete measures, for instance, five-year socio-economic development plans, disaster risk reduction plans and climate change action plans, to specify national policies. This is the intermediate step of the policy implementation process, which is termed policy-level action, discussed further below.

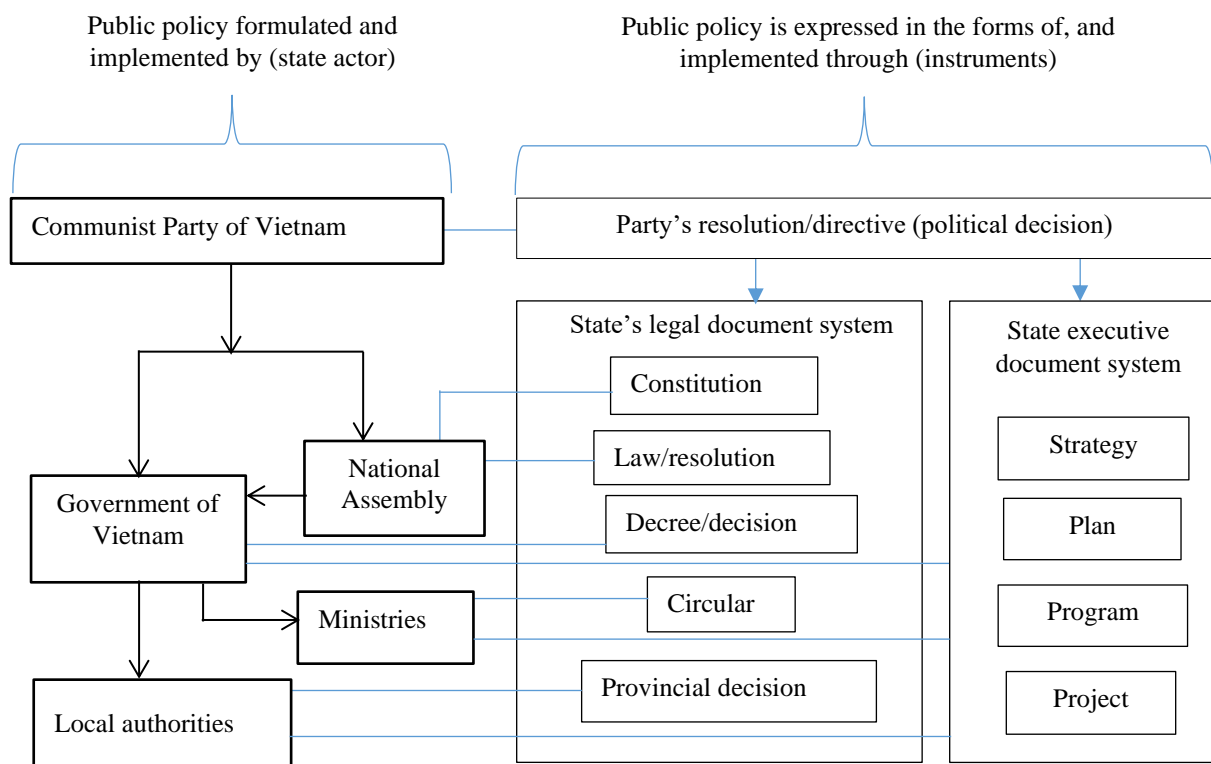


Figure 4.2: State policy actors and policy expression forms (source: Author)

Vietnam's constitution is the fundamental and supreme law. The majority of formal power resides at the central government with all laws and national policies adopted by the NA and the GoV (ministries). The former creates framework legislation, whilst the latter develops guidance on subsequent implementation. The CPV has significant influence over the executive and the legislative, and exercises its power through the Central Party Committee. The party members hold almost all senior government positions (Grantham Research Institute, 2015).

Researchers from the developed world often view Vietnam as a highly centralised state, an authoritarian regime with a hierarchical governance structure from the national to the commune level. However, this observation is not the whole picture (Shanks et al., 2004). In the policy-making process, the involvement of the general public remains limited (Nguyen, Le, Tran & Bryant, 2015; Hanh, 2016), however, international donors and development agencies such as the WB, UNEP, UNDP and the Japan International Cooperation Agency (JICA) actively intervene in Vietnam’s domestic policy formulation. Many policy areas, e.g. environment, biodiversity, poverty reduction, and climate change, see the presence of donors. However, such international organisations are mainly involved in policy formulation rather than implementation (Benedikter, 2016).

The development of content of a public policy is regulated by a governmental decree (GoV, 2016a) which is a legal document in the Vietnamese legislation system. Accordingly there are five formal ‘tasks’ in designing a policy, which are identifying: (1) the problem to be addressed, and its causes; (2) overall and specific objectives to be achieved; (3) directions and solutions to addressing the problem; (4) the target population and policy implementers; and (5) the decision-maker (to whom the policy will be adopted, the Prime Minister or the party leader or ministerial level).

4.4.2. Public policy implementation

Public policy implementation is the process of transferring public policy (intention) into practice, specifying policy objectives and solutions within specific time horizons and localities through (1) formulating, adopting, and enforcing policy documents (legislation, strategies, plans) and (2) designing, approving and delivering specific projects to realise public policy objectives (Hoa, 2016).

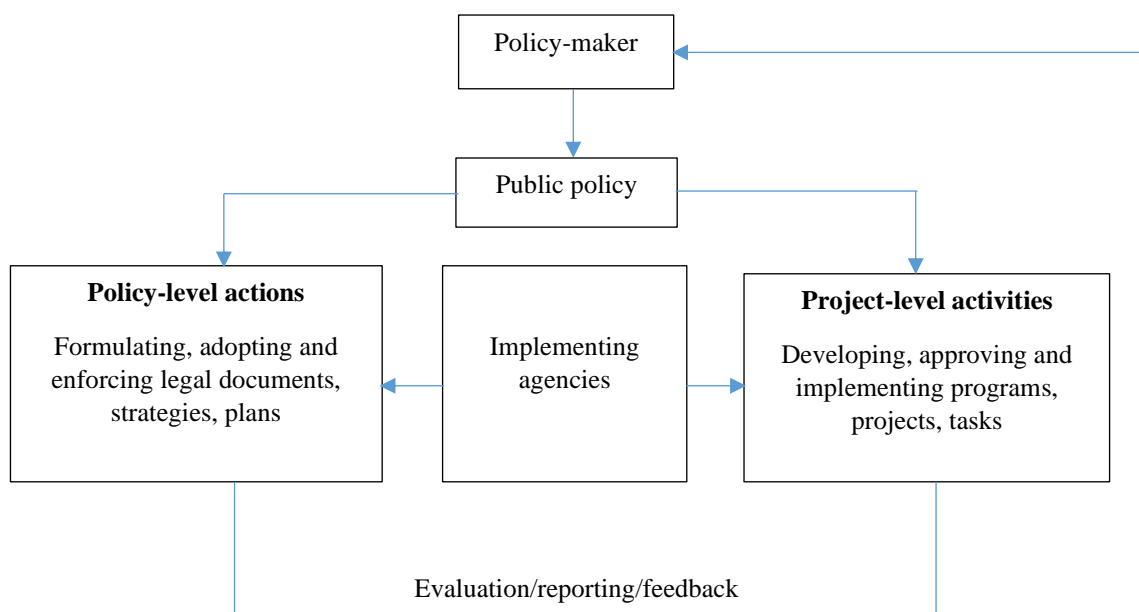


Figure 4.3: Public policy implementation processes in Vietnam
(source: Adapted from Hoa, 2016)

Policy-level action

The policy-level action process does not yield concrete outcomes or impacts, its outputs are its ‘documents’. Such actions create an enabling environment and conditions for project-level activities (e.g. financial and coordination mechanisms). According to Hoa (2016), public policy implementation is not simply the arrangement of implementing specific public policy solutions, but a continuation of what is lacking in policy formulation. In the Vietnamese context, public policies made at the national level either by the party, NA or GoV are often in the form of framework policies which may need further development at sectoral and local levels to ensure they fit with specific policies, strategies, or plans to accommodate diverse contextual circumstances. Such an action can be termed an intermediate step between the original policies and concrete measures on the ground.

Project-level activities

Project-level activities create actual outcomes and impacts. They bring policy intentions into life. Sectoral policies’ objectives such as forestry development, agriculture expansion or CCA are realised through specific projects.

The implementation of many public policies requires the development of programs and projects. The effectiveness of public policy implementation therefore depends on the quality and delivery of programs and projects. Thus, program and project management plays an important role in the implementation of public policy in Vietnam (Hoa, 2016). There are legislation and regulations on project management promulgated by the authorities, which apply for climate change related projects (e.g. the *Law on public investment 2014*, *Law on bidding 2013*, and *Law on state budget 2015*). Each state-funded project is held accountable to those regulatory frameworks in developing, appraising, approving, carrying-out, and reporting (especially investment projects such as construction of sea dyke systems or mangrove afforestation). This is the existing institutional arrangements within which CCA policy implementation processes happen and they exist with or without the presence of climate change governance. In respect of the management of climate change related projects, besides the general rules, the GoV and its ministries have issued some specific guidelines relating to project selection criteria and project financing (e.g. Decision 1719/QĐ-TTg in 2011 by the Prime Minister; inter-ministerial Circular 07/2010/TTLT-BTNMT-BTC-BKHĐT).

The programmatic approach to policy implementation

A national target program may cut across policy-level action and project-level activities. The content of a national target program (NTP) can include developing policy documents such as a law, a strategy or a plan; and a list of relevant projects.

The GoV often employs NTPs on a national-scale with coherent objectives, solutions and interrelated projects, with particular programs led by a governmental ministry, to realise public policy objectives.

Most key socio-economic sectors have their own NTPs (e.g. healthcare, rural development, poverty reduction, energy, culture) and in the period 2011-2015 there were 16 NTPs being implemented in Vietnam (National Assembly [NA], 2011a). This can be seen as the economic instrument used by the central government to redistribute the public budget to localities and sectors (Shanks et al., 2004; Hoa, 2016). In another context, Fankhauser and Burton (2011) commented that using a programmatic approach to adaptation is more effective than a project-by-project basis. In respect of climate change, the national programmatic approach has also been employed by the GoV to implement climate change policy through the development and implementation of the NTP to Respond to Climate Change in 2008 (NTP-RCC), the Support Program to Respond to Climate Change (SP-RCC) in 2009 and the National Scientific and Technological Program on Climate Change in 2011. CCA policy in Vietnam officially started from the NTP-RCC in 2008.

According to Shanks et al. (2004) the NTPs direct resources, provide clear and target-oriented roles and responsibilities, and enhance collaboration between relevant agencies. The preference for NTPs reflects the state-centric tradition of public management, and a legacy of socialism, distributing state resources equally, and social mobilisation to address socio-economic problems.

The challenge of CCA policy in Vietnam is actually not policy formulation but implementation through specific programs/projects, which depends on many factors such as human and financial resources, project (mis)management, science and technology, vertical and horizontal interaction among policy sectors and government agencies as well as between state and non-state actors. The effectiveness of state-funded climate change related projects is also linked to the level of corruption in Vietnam, which is currently high. According to the Worldwide Governance Indicator published by the WB, the control of corruption index of Vietnam in 2016 was 41.82 out of 100 - the higher the less corrupted; and the Corruption Perceptions Index 2016 announced by Transparency International ranked Vietnam's corruption level 113th out of 176 countries. Studies on climate change policy in Vietnam have also raised the issue of corruption (Brunn, 2012; Zimmer et al., 2015; Trinh, 2015) because of the institutional quality issues it raises.

4.4.3. Policy actors

State agencies

Although there are diverse actors involved in the policy process, the bureaucracy remain the crucial group of actors in public policy, especially in the context of the authoritarian regime and state-centric governance in Vietnam (Benedikter, 2016). The main state policy actors in Vietnam include the CPV, the National Assembly of Vietnam (NA), the GoV (and their various ministries and departments), and local government (people's committees, people's councils, and functional agencies). These state actors are involved in policy-making and implementation processes by legal regulations (their constitutional mandates), and they have formal public power to enforce policies (Dente, 2014).

Non-state actors

The role of non-state actors varies across public issues, the present research focuses on the trend of their involvement in socio-economic issues including environment and climate change. Shanks et al. (2004) observed that since the 1990s, donors and NGOs have sought to intervene in and reform the Vietnamese administrative system.

According to Benedikter (2016), the inherent political nature of policy process derives from the involvement of various actors (state, private sector and social organisations), which are divergent in values, interests, ideas, and world views. Since the present research concerns MLG, it is necessary to discuss the role of the non-state actors in the Vietnamese policy process including policy implementation. Government is only one of many entities involved in governing public issues. In CCA governance, public agencies are key policy actors, however NGOs and donors are also important stakeholders in CCA policy processes. According to Benedikter (2016), one rarely finds a public policy field in contemporary Vietnam that has no presence of international development agencies such as the WB, UNDP, UNEP, ADB, and others.

NGOs are actively involved in CCA in Vietnam and take the bottom-up approach through community-based adaptation (CBA) measures and participate in policy consultation workshops. NGOs directly focus on the poor, vulnerable groups, and what impacts their lives, assets and income sources. The CBA and ecosystem-based adaptation initiatives undertaken by NGOs are alternatives to the technological adaptation approaches taken by government agencies.

International donors influence climate change policy changes in Vietnam through conditional grants (changes to be made in domestic policies) and dialogue with central government ministries (through the SP-RCC). Donors have also applied a multi-sectoral approach rather than conventional single sectoral manner. Official Development Assistance (ODA) projects run across some sectors with demonstrations in specific localities. This approach helps coordinate different policy actors. Donors often request more involvement of private sectors in project implementation, gradually creating a public-private partnership (PPP). The role of ODA goes beyond financial matters, but facilitates changes in governance of public issues as well as CCA in Vietnam.

Donors gain credibility and legitimacy to engage in the policy process through for example, pilot projects in new public areas which then inform policy formulation. Conditional loans are another mechanism used by donors to become involved in politics in Vietnam, e.g. policy dialogue via the SP-RCC. Some donors only fund cross-sectoral projects which involve different actors, while donors can also request the participation of NGOs in project implementation. International donors are seen as an external sphere of change (Steinberg, 2003), leading to domestic policy change in Vietnam. Nevertheless, although there is evidence of non-state actors being active in the policy process in Vietnam, the involvement of non-state actors in public issues remains limited due to the state-centric

political ideology (Fritzen, 2007), especially when it comes to policy implementation (Benedikter, 2016).

The role of the Communist Party of Vietnam (CPV)

The CPV is the most important force in Vietnamese politics, though a political organisation and not part of the state's administrative system it has a critical role in the public policy process. The party structure is parallel to the government's structure from national to communal level. In respect of the role of the party in the policy process, the *Constitution of the Socialist Republic of Vietnam 2013*, Article 4 stipulates that the CPV leads the state and society. Additionally, the CPV's *Charter 2011*, Article 41 states that the party leads the state by its political platform, strategy, policy and direction. The relationship between the CPV and the state (the NA and the GoV) has changed over time however, the party remains central to the public policy process in Vietnam (Shanks et al., 2004). It is widely recognised that political commitment and CPV leadership are key factors for the success of any public policy in Vietnam (Hoa, 2016). The climate change policy process in the Vietnamese political context is no exception. For instance, Resolution 24/NQ-TW by the CPV in 2013 is seen as a key policy direction for climate change actions of government agencies at all levels. Climate change is therefore also a matter for the entire political system in Vietnam.

The role of the CPV in the policy process in Vietnam is nevertheless different to that of multiple-party countries where political parties are an intermediating actor, they have an important but indirect role in the policy process (Howlett & Ramesh, 2003). The parties may influence the policy formulation and decision-making stages by their members of the political executive however, their role in policy implementation is limited.

Mass organisations

According to London (2014), mass organisations play political roles as they are responsible for promoting and ensuring faithfulness to the CPV. There are a number of political-social organisations such as the Fatherland Front of Vietnam, Women's Association, Farmers' Association and Youth's Union, as well as professional associations, all of which are party-affiliated. The Vietnam Fatherland Front (VFF) is the umbrella group for mass organisations (Thayer, 2010). The VFF has a designated function of overseeing the government's exercises. It therefore has power to monitor the implementation of climate change policy by government agencies.

Although there exists legislation regulating the involvement of such organisations in the policy process (Decision 217-QĐ/TW by the CPV dated 12 December 2013), the key climate change policies in Vietnam such as the NTP-RCC 2008 and the National Climate Change Strategy (NCCS) 2011 all highlight the need for the participation of mass organisations in climate change response activities. However, there is a lack of specific mechanisms for their participation in public policy consultation and project implementation. In CCA policy implementation process, mass organisations are mostly

involved in awareness raising.

4.4.4. Decentralisation

Territorial decentralisation is the transfer of power and responsibility from higher to lower levels of government (Wescott, 2003; Tran, 2014) and has been evolving since 1986, when Vietnam started its economic liberalisation process. Though there remains a legacy of the centrally planned economy, centralised party-state system, there is also evidence of a decentralisation of authority in public governance in Vietnam.

There are three main dimensions of decentralisation: fiscal; administrative; and political (Anh, 2016). Fiscal decentralisation is regulated by laws (local government and state budget laws) while decentralisation of policy-making power is stipulated in the *Law on promulgation of legal document 2015*. In almost all national or sectoral policy and legal documents, there are provisions regulating the responsibilities and authority of provincial government (provincial people's committee). The public administration reform program initiated by the Gov in the late 1990s focussed on administrative decentralisation. However, political decentralisation is limited. Personnel and staffing issues remain under the power of the central government with key provincial government officials under the direct management of the central authority.

The main barrier that hinders decentralisation is the lack of capacity of lower level authorities. The commune is the lowest state level, which also has the lowest public management and policy capacity, with provincial and district agencies using this as an excuse for the lack of delegation of responsibilities. Consequently, a number of projects and activities at communal level are directly implemented by district authorities or even higher, by provincial departments (Shanks et al., 2004).

A common problem with decentralisation is that central government delegates more responsibilities to local authorities to facilitate policy implementation capacity. However, these authorities lack the financial resources and decision-making power to fulfil their delegated work (Corfee-Morlot et al., 2009). The decentralisation of mandates is not in line with fiscal and political decentralisation.

The WB (2015) reported that financial decentralisation in Vietnam has been successful. However, Anh (2016) noted that the decentralisation efforts have been below government's expectations. Anh (2016) described two approaches to decentralisation in Vietnam. Top-down decentralisation is the devolution of state functions on the basis of duties for which higher levels of authority should not be responsible. Whilst the bottom-up approach requires superior governments to have obligation of tasks that inferior authorities are not capable of delivering. Nevertheless, Vietnam still lacks some of the essential prerequisites for effective decentralisation such as transparency, accountability, and political commitment (Anh, 2016).

Decentralisation is linked to a multi-level approach to CCA governance, which is the upwards,

downwards and sideways (privatisation, deregulation) diffusion of power of the central government in order to adapt to climate change. Decentralisation is also related to the characteristics of CCA per se. Climate change impacts are felt at the local level and the benefits of CCA measures also occur locally which should, in theory, trigger the decentralisation of resources and authorities to address climate change impacts. However, the empirical examination of Hai Phong city and Soc Trang province will test this assumption (see chapters seven and nine).

4.4.5. Regional coordination

Regional coordination in Vietnam is understood as inter-provincial coordination. Region is a ‘level’ below national but above provincial administrative levels. It does not exist in the current formal administrative system in Vietnam but is a need that has arisen from the practice of managing cross-boundary issues such as river basin, environment, biodiversity, and CCA (GoV, 2014a). It is a mechanism rather than another ‘layer’ in the MLG structure. This is a fashionable theme in public governance in Vietnam especially since the introduction of the governmental Resolution 120/NQ-CP in 2017. The GoV acknowledges the need for a regional approach to governing inter-provincial issues such as economic development, environmental protection, natural resources, and climate change. At a regional conference in northern Vietnam on 25 June 2019, the Prime Minister of Vietnam reiterated that regional institutions and coordination mechanisms are crucial however, the GoV, its ministries and provinces are struggling to develop and implement them effectively (Tuan, 2019).

In 2016, the Prime Minister adopted a decision on a pilot coordination mechanism in the Mekong Delta (Decision 593/QĐ-TTg dated 6 April 2016), and also approved a plan to implement the pilot mechanism (Decision 2220/QĐ-TTg dated 17 November 2016). The Decision 593/QĐ-TTg included a regulation for pilot coordination for regional socio-economic development in the Mekong Delta. In the governmental Resolution 120/NQ-CP, the Prime Minister has assigned the Ministry of Planning and Investment (MPI) to research and propose the establishment of a regional coordination Council.

International organisations also support the GoV in establishing regional governance processes and structures. In April 2016, 15 international development partners issued a statement advocating regional coordination in Vietnam, recommending that many problems for Vietnam’s development need to be resolved at a supra-provincial level such as regional economic development, CCA, water resources and infrastructure development (Gilfillan, Nguyen & Pham, 2017).

There are two main river deltas in Vietnam, the Red River Delta and the Mekong River Delta. The GoV have employed a regional approach to planning, which has led to the development and adoption of some regional plans such as the irrigation plan of the Mekong Delta in the period of 2012-2020 and orientation to 2050 in the context of climate change and sea level rise (GoV, 2012a), and the master plan of irrigation in the Red River Delta in the period of 2012-2020 and orientation to 2050 in the context of climate change and sea level rise (GoV, 2012b). These irrigation plans are central to the

policy of responding to climate change in the irrigation and water resources sectors. The proactive adaptation to climate change depends largely on natural conditions such as topography, water resources, and coastline. These conditions are distinguished by each region, including many provinces and cities, so regional planning is appropriate. However, since Vietnam does not have a regional level authority, this is placing a burden on the central government to identify adaptation measures for the whole region with consideration for the circumstances of each province. This hinders the flexibility and autonomy of provinces, which are essential in CCA. The difficulties of cross-provincial coordination and planning in Vietnam create an interesting issue in studying the root causes of socio-economic, environment, and CCA governance deficiencies and the absence of regional coordination institutions is seen as a missing link in the current Vietnamese government structure.

4.4.6. The ‘silo effect’

The ‘silo effect’ (Exworthy & Powell, 2004) is strong in the Vietnamese context and limits the capacity to overcome the fragmented nature of governance. Line government agencies do not collaborate effectively due to bureaucratic fragmentation and separatism (Sajor & Minh Thu, 2009) and ambiguous accountability (Fritzen, 2007). The conventional working mechanisms among government agencies are based on mandates (Gilfillan et al., 2017), however, the mandate issue is sometimes problematic since agencies will not take actions which fall outside their formal functions and responsibilities. In this regard Olsen (2006), and Pillay and Bilney (2015) claim that government agencies’ work is rule-bound and inflexible. Reality is inherently complex and diverse, and not all public issues (or sub-issues) are institutionalised and mandated to relevant government agencies, especially with respect to emerging and cross-cutting problems, meaning that functional agencies are reluctant to work together. In this case, higher authorities have to take action to coordinate them. However, this creates additional work for executive agencies and slows down the policy process.

4.5. Climate Change Adaptation in Vietnam

4.5.1. Observed and future climate change

Observed climate change

Global climate change is unequivocal (IPCC, 2014). Vietnam’s climate has been changing in line with the global trend. Temperatures increased at most monitoring stations, more rapidly in recent decades. On average, the annual average temperature in the period of 1958-2014 increased about 0.62°C. Average annual rainfall decreased in most northern monitoring stations and increased at most southern stations. Extreme temperatures in most regions increased. Droughts occurred more frequently during the dry season. Extreme rainfalls dropped significantly in the Northern Delta region, and sharply increased in the South Central and Central Highlands. The number of strong storms is increasing. The number of extreme cold days tended to decrease but there were abnormal cold spells. The influence of

El Nino and La Nina have also tended to increase (MONRE, 2016).

Future climate change

In 2016, MONRE announced the climate change and sea level rise scenario for Vietnam (this is the third generation of the document, the first one was introduced in 2009). The scenario of climate change and sea level rise for Vietnam provides the most up-to-date information on the assessment of observed changes, trends, projections of climate change and sea level rise in the 21st century in Vietnam.

Temperatures in all regions of Vietnam are projected to increase compared to the baseline period (1986-2005), with the largest increase in the Northern region. The 2014 IPCC Fifth Assessment Report (AR5) used four Representative Concentration Pathways (RCPs) including RCP2.6, RCP4.5, RCP6 and RCP8.5. According to the RCP4.5 scenario, the annual average temperature in the whole country at the beginning of the century increases 0.6-0.8°C. By the middle of the century, the range will be 1.3-1.7°C. By the end of the century, there is a projected increase of 1.9-2.4°C in the North and 1.7-1.9°C in the South. According to the RCP8.5 scenario, the annual average temperature in the country at the beginning of the century increases 0.8-1.1°C. In 2050, the projected increase is 1.8-2.3°C, with 2.0-2.3°C in the North and 1.8-1.9°C in the South. By the end of the century, there is a forecast increase of 3.3-4.0°C in the North and 3.0-3.5°C in the South (MONRE, 2016).

Annual rainfall is projected to increase nationwide. According to the RCP4.5 scenario, the annual rainfall at the beginning of the century rises up in most regions of the country from 5-10%; in the middle of the century, there is an expected increase of 5-15%, in which some coastal provinces in the Northern Delta, North Central and Central regions could increase by over 20%. By the end of the century, there is a similar distribution in the middle of the century, however, there will be more regions having over a 20% increase. Under the RCP8.5 scenario, annual rainfall is similar to the RCP4.5. It is noteworthy that under this scenario by the end of this century, the greatest change may reach over 20% in most of the Northern, Central and Southern regions and parts of the South and Central Highlands. The highest average 1-day and 5-day rainfall increase from 40-70% compared to the average period in the west of the Northwest, Northeast, Northern Delta, North Central, Thua Thien - Hue to Quang Nam, South East, South Central Highlands. Other areas have a 10-30% increase (MONRE, 2016).

Climate extremes: The number of storms and tropical depressions is projected to be less variable but more concentrated at the end of the storm season, this is also the period when the storms are mainly in the South. Strong storms tend to increase. Summer monsoon is likely to start earlier and end later. Rainfall during the period of monsoon increase. The number of cold days in the Northern mountainous provinces, the Northern Delta and the North Central Coast all decrease. The number of hot days (temperature above 35°C) tends to increase in most regions of the country, the largest is in the North

Central, South Central and South. Drought can become more severe in some areas due to increased temperatures and reduced rainfall in the dry season in South Central in spring and summer, Southern in the spring and in the North in winter (MONRE, 2016).

Sea level rise: Vietnam's average sea level rise scenario (table 4.1) is likely to be higher than the global average. Sea level rise in coastal areas of southern provinces will be higher than in the northern ones.

Table 4.1: Sea level rise scenario in Vietnam

Scenario	Year	Entire coastal zone
RCP2.6	2050	21 cm (13 cm - 32 cm)
	2100	44 cm (27 cm - 66 cm)
RCP4.5	2050	22 cm (14 cm - 32 cm)
	2100	53 cm (32 cm - 76 cm)
RCP6.0	2050	22 cm (14 cm - 32 cm)
	2100	56 cm (37 cm - 81 cm)
RCP8.5	2050	25 cm (17 cm - 35 cm)
	2100	73 cm (49 cm - 103 cm)

Source: MONRE (2016)

Changes in the climate system have created climate-related hazards which interact with the vulnerability of exposed localities and sectors. The section below outlines potential climate change impacts in Vietnam, particularly in its coastal regions.

4.5.2. Climate change impacts and vulnerability

Stern (2006) claims that all countries regardless of development levels will be affected by climate change impacts. However, the poorest nations, regions and people will suffer earliest and most, although they have contributed least to the causes of global climate change. Evidence shows that the costs of extreme weather events such as floods are increasing (IPCC, 2014).

According to the GoV (2008), Vietnam is among the most vulnerable countries due to climate change and sea level rise with the Mekong and Red River Deltas being significantly affected. The NCCS estimated that in 2001-2010 climate-induced disasters such as typhoons, floods, landslides, inundations, and droughts have led to 9,500 deaths and missing as well as an annual economic loss of about 1.5% of GDP (GoV, 2011a). Storms and floods are more frequent. The country now experiences six to seven typhoons annually. Between 1990 and 2010, 74 floods have occurred in the river systems of Vietnam. Drought, salinisation, landslides and other natural disasters have

also hindered its socio-economic development.

Extreme disasters have become more frequent, inducing more damage to people and affecting the economy considerably (MONRE, 2015b), and have seriously undermined Vietnam's development efforts and accentuated social differentiation (Buch-Hansen et al., 2013). With respect to future projections, the climate change and sea level rise scenarios for Vietnam (first released in 2009, updated in 2011 and 2016), indicate that if the sea level rises by 100cm, then about 40% of the Mekong River Delta and 17% of the Red River Delta will be inundated; 10-12% of Vietnamese population will be directly impacted and the country will lose around 10% of its GDP without proactive adaptation measures (MONRE, 2016).

With a long coastline, Vietnam is regarded as being highly vulnerable to climate extremes and changes in the typhoon regimes (Adger, 1999). However, the vulnerability of Vietnam to climate change impacts is also partly attributed to its limited financial capacity to cope with the threats of climate change (Fortier, 2010). Like other developing countries, Vietnam faces many challenges in socio-economic development in the context of increasing climate change impacts. Lack of awareness among policy-makers on climate change issues, and inadequate and incompatible infrastructure, ineffective land use and settlement planning, and poor healthcare systems are some of the constraints that hinder adaptation efforts and exacerbate vulnerability.

In Vietnam, the agricultural sector, and coastal and poor communities are seen as most vulnerable to impacts of climate change, variability and extremes (Adger, 1999; GoV, 2008; Fortier, 2010; Buch-Hansen et al., 2013; Zimmer et al., 2015; Tran, 2016). According to Adger (1999) for rural and coastal communities in Vietnam, almost all sources of income could be characterised as being climate dependent. The agriculture, forestry and fishing sectors are among the three key economic sectors in Vietnam. Agriculture, forestry and fishing; industry and construction; and services contributed 17%, 33%, and 40% respectively to Vietnam's GDP in 2015 (General Statistics Office of Vietnam, 2017b). In Soc Trang Province, one of the case studies in this thesis, the agriculture, forestry and fishing sectors contributed 45% of Soc Trang's GDP in 2015 (Soc Trang Statistics Office, 2017), meaning that the province's economy is highly susceptible to climate change impacts.

4.5.3. Climate change adaptation: Policy response to impacts

Vietnam's high vulnerability to anticipated increases in climate variability and extremes is of concern to policy-makers and politicians (Buch-Hansen et al., 2013). The GoV has taken measures to address climate change impacts and a number of climate change policies have been developed and implemented (e.g. the NCCS). Furthermore, new institutions have been established or the functions of climate change governance have been added to existing relevant governmental agencies (e.g. MONRE). Vietnam has participated in international climate negotiations since the 1990s and the issues of climate change have been raised nationally from the early 2000s, with the

topic officially entering the national decision-making processes in 2008 with the introduction of the NTP-RCC (Zimmer et al., 2015).

Regulatory framework: Policy and legislation

Internationally, Vietnam has actively joined the global efforts to address climate change impacts and has responsibly participated in international negotiations (e.g. Conference of the Parties (COPs)). The GoV considers international cooperation (bilateral and multilateral) as crucial for its national climate change response. The country is a signatory to the UNFCCC (in 1994), Kyoto Protocol (in 2002), and PA (in 2015) (MONRE, 2019). Domestically, the GoV has actively responded to climate change, as demonstrated by a number of policies and action plans at national and local levels. The CPV has also been taken CCA more seriously, albeit haphazardly and without much in the way of a national level set of policies and implementation approaches.

Three key CCA policy documents are the NTP-RCC, the NCCS, and the Resolution of the Party Central Committee on proactive response to climate change, improvement of natural resources management and environmental protection. The first two documents are governmental decisions, the last one is a political decision (table 4.2). This is in line with Hoa's (2016) definition of public policy (in this case CCA policy), in which the author states that public policy is a set of interrelated decisions made by the state.

Table 4.2: Key national CCA policy documents

Key national CCA policy documents	Summary
National Target Program to Respond to Climate Change (NTP-RCC) (2008)	The NTP-RCC 2008 is the first national policy document on climate change response in Vietnam. Its objectives include assessment of climate change extent and impacts in Vietnam, identification of measures to respond to climate change, development of a science and technology programs on climate change, strengthening the capacities of agencies working on climate change, awareness raising and human resources development, enhancement of international cooperation, mainstreaming climate change into socio-economic, sectoral and local development plans, preparation of action plans of ministries, sectors and localities to respond to climate change
National Climate Change Strategy (NCCS) (2011)	The NCCS outlines the objectives for 2011-2015 and 2016-2050, and projects to be implemented in the period of 2011-2015 to address climate change issues at the national scale. The strategic viewpoints are: climate change response is vital for the development of the country; responding to climate change must be associated with sustainable development and a transition towards a low-carbon economy, take advantage of opportunities to increase competitiveness and strengthen the national position in the international arena; carrying out adaptation and mitigation actions parallel to effectively respond to climate change, in which adaptation is central in the initial period; response solutions must be systematic, integrated, inter-sectoral and in line with the country's development level and capacity.
Resolution of the Party Central	The Party Central Committee is the supreme power in Vietnam therefore

Committee on proactive response to climate change, improvement of natural resources management and environmental protection (2013)	<p>this Resolution is an important basis for the Party apparatuses and government agencies at all levels to develop and implement climate change policies and response measures.</p> <p>The Resolution defines that adaptation and mitigation must be carried out in parallel, in which adaptation to climate change and proactive disaster prevention are central. This direction is in line with the NCCS 2011 – where adaptation is given priority in Vietnam. Noticeably, this Party policy centres on both CCA and disaster risk management</p> <p>The Resolution’s overall climate change objectives are: by 2020 proactively adapt to climate change, prevent disaster and reducing GHG emissions; by 2050, proactively respond to climate change.</p> <p>Specific objectives towards 2020 include:</p> <ul style="list-style-type: none"> - Improve capacity for forecasting, warning of disasters, monitoring of climate change by functionally specialised agencies. Develop a sense of proactive disaster prevention and adaptation to climate change in each individual of the society. Gradually reduce the loss and damage to population and assets caused by disasters. - Proactively prevent and control the impacts of tidal surges, floods and salinity intrusion due to sea level rise in the coastal areas, especially in the Mekong River Delta, Red River Delta and Coastal Central Vietnam, focusing on Ho Chi Minh City, Can Tho, Ca Mau and other coastal cities/provinces. - Reduce GHG emissions per unit of GDP by 8-10% compared to the 2010 level.
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Source: GoV (2008, 2011a); CPV (2013)

In line with the central government policy efforts, sectoral ministries and provinces have developed and approved their action plans to respond to climate change. Most documents related to CCA in Vietnam are only expressed in the form of strategy and plans which are executive orders, only direct/guide activities of state agencies. Regulations on specific rights and obligations of organisations and individuals in relation to CCA have not been legalised. However, there are sectoral (non-climate) laws having provisions on climate change responses including CCA such as *Law on Environmental Protection 2014* and *Law on Meteorology and Hydrology 2015*.

This research studies the adaptation composed of actions by the GoV, which is also called planned adaptation. Note that government is a collective entity, implying a constellation of ministries, which in CCA can be divided into two groups: (1) mandated with CCA governance tasks; (2) those governing sectors which are affected by impacts of climate change. The former is the MONRE system, the latter are economic ministries such as agriculture and transport. The economic ministries have been taking measures to reduce climate-related impacts on their activities though they might not name such activities ‘adaptation’. Actions by MONRE can be described as purposeful adaptation. They stand-alone and are more on the side of policy-level actions. Actions by other agents are either called unintentional adaptation (e.g. changing crops due to market not climatic conditions; or relocating a house based on better financial status not because of climate-related threats) or purposeful sectoral adaptations. They are more on the side of project-level activities.

Institutional framework: Organisational structure

MONRE is the national focal point for the GoV on climate change response in Vietnam. At the provincial level DONRE is responsible for climate change response within the jurisdiction of the provinces (63 Departments in 63 provinces across Vietnam). At the district level (each province consists of some districts) and the Division of Natural Resources and Environment (DIONRE) is responsible for specific climate change response activities in the district and at commune level (each district consists of several communes), although as noted earlier in the chapter currently there are no functional agencies charged with climate change issues at the commune level, instead there are individual cadres.

Similarly to some other developing countries (e.g. India, the Philippines, Indonesia), the GoV assigned the mandates on climate change governance to a governmental ministry responsible for environment, not a ministry in charge of energy or economic affairs as in some developed countries (e.g. Denmark, Australia). Meadowcroft (2009) found that there are three models of institutional arrangements for climate governance: assigning climate change governance to an environment ministry, creating an independent agency solely responsible for climate change, or mandating climate change into an existing economic affairs ministry. To which we could add an additional arrangement which is to have no assigned responsibilities at all.

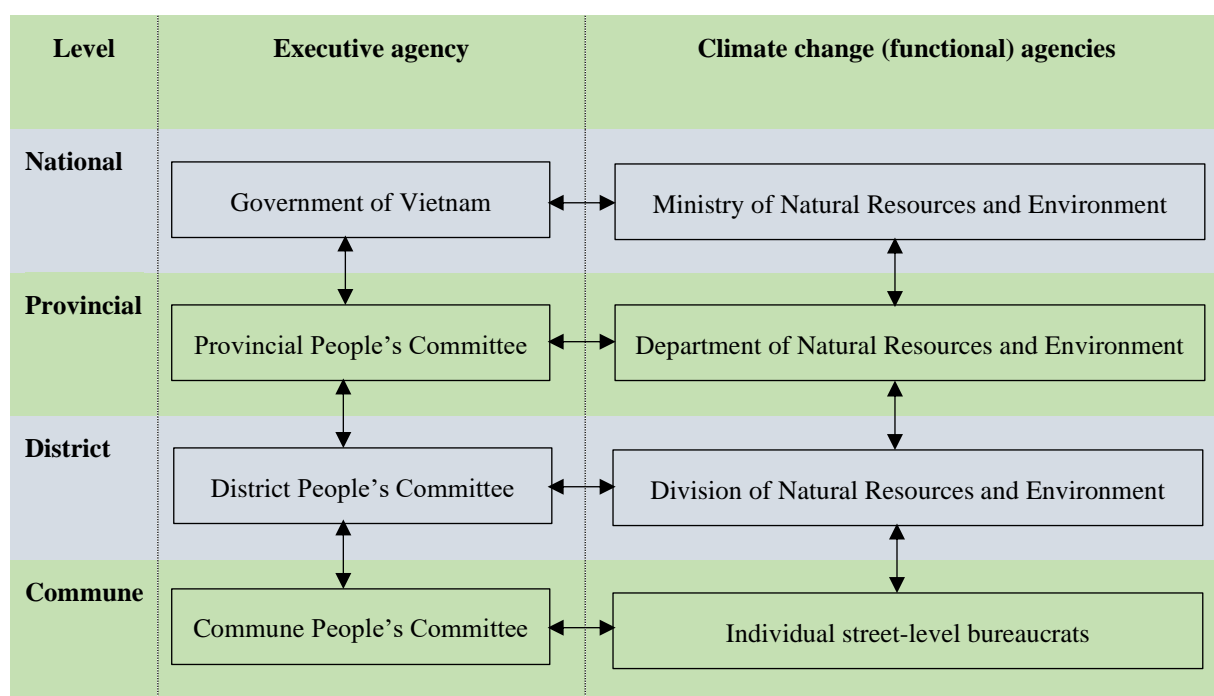


Figure 4.4: CCA lead authorities at all levels (source: Author)

In order to get budget allocated for CCA actions (both policy-level actions and project-level activities), MONRE has to work closely with the MPI and Ministry of Finance (MOF). Financing and investment mechanisms and procedures are critical for the implementation of particular programs and projects. This has a significant impact on how public policies are implemented at all levels. The implementation

of CCA policy therefore depends largely on the availability of overall financing and investment guidelines and sources which are mainly the mandates of the MOF (recurrent expenditure) and MPI (capital expenditure), not MONRE (the lead agency governing the climate change sector). Additionally, in order to get CCA mainstreamed into socio-economic development, and some relevant sectors, MONRE has to cooperate with functional agencies charged with governing those sectors (e.g. MPI, Ministry of Agriculture and Rural Development (MARD)). At the national level, there are 10 ministries and 35 ministerial departments that are regularly involved in the CCA policy process (as well as a number of non-state actors). This makes the coordination work of MONRE as a lead agency in CCA governance challenging, especially because MONRE is seen as a weak ministry in the GoV (Zink, 2013).

4.6. Coastal Management in Vietnam

4.6.1. Vietnamese coastal zone

Vietnam has a coastline of over 3,200 km, and roughly 3,000 islands. The Red River Delta in the north and the Mekong River Delta in the south are the most fertile and significant economic regions. The area of coastal and sea waters under the administration of Vietnam that are determined by the United Nations Convention on the Law of the Sea is around one million km² (Sekhar, 2005).

Vietnam has 28 coastal cities and provinces (out of 63 cities and provinces in the country). The coastal zones account for around 17% of Vietnam's total land area. As of 2014, there are more than 20 million people inhabiting the coastal zones, equivalent to around 22% of the Vietnamese population. The average population density in coastal zones is 1.2 times the country's average density (Nguyen & Nguyen, 2014).

Coastal resources are vital for many local communities and indigenous people. With large seas and long coastlines, Vietnam has expanded the development activities in the coastal and marine zones and uses the coastal zones for many purposes. The development of industry, tourism, aquaculture, agriculture, seaport and shipping, as well as urban expansion, is generally concentrated in the coastal areas. These economic activities are also likely to increase in the coastal zones in the future due to population growth and the developmental needs of the country. The sea and coastal based economy is expected to represent approximately 50% to 55% of the national GDP in 2020 (Vu, 2012).

4.6.2. Coastal problems

Population growth and the excessive exploitation of natural resources have created enormous pressures on coastal ecosystems and have led to biodiversity loss and ecosystem degradation, conflicts between potential uses and congestion problems (Katsanevakis et al., 2011). Within the next 20 years, more than 35% of the Vietnamese population will inhabit littoral regions as people are moving from rural to urban areas, and from hinterlands to the coasts. Management of urbanisation in the coastal

zones is therefore one of the most difficult planning tasks (Nguyen, Nguyen & Tran, 2008).

Industrialisation is a recent phenomenon in Vietnam, and has led to serious degradation of coastal ecosystems, especially because of pollution and habitat encroachment along the coast (Brown, 2013). Land reclamation for resorts, industry, and aquaculture in coastal areas has caused many problems. Land shortages for future industrial and urban development is also likely to become a major constraint on socio-economic development (Sekhar, 2005).

The coastal zones in Vietnam are highly exposed and affected by natural hazards, particularly typhoons, which periodically strike the northern and central coastal zones, and have caused extensive loss of life and damage of assets (see section 4.5.2). This situation will become more severe in the future with the increasing impacts of climate change and sea level rise (Kelly, 2014). Coastal erosion is already threatening the coasts of Vietnam and is determined by many factors such as sea level and currents, winds, and waves. The erosion of river deltas is caused by rainfall patterns inland, which change volumes of freshwater input, runoff, and sediment flowing to downstream areas. These factors of coastal and riverine erosion are all influenced by climate change (IPCC, 2014).

4.6.3. Coastal management

Agenda 21 calls for countries to develop and implement coordination mechanisms for integrated management and sustainable development of coastal zones (Cicin-Sain, 1993). Being aware of the problems in coastal zones due to unplanned and unsustainable economic activities as well as impacts of climate change, the GoV started to pay attention to coastal management approaches in the early 1990s (Vu, 2012).

The coast of Vietnam and its biodiversity are very significant for the country's economy and needs protection. At the same time a considerable percentage of the population relies on the coastal resources for their livelihood. Rapid industrialisation and urbanisation have led to increasing conflicts over resource use in the coastal and marine areas. Therefore, sustainable exploitation of the coastal resources is essential in this context (Sekhar, 2005). The need for integrated coastal management (ICM) in Vietnamese coastal provinces originates from practice. It relates closely with resource use, disaster prevention, protection of coastal ecological systems and promoting a multi-sectoral and multi-purpose management mechanism with wide participation of local coastal communities (Nguyen et al., 2008).

Vietnamese coastal governance is challenging due to the complex and dynamics of the coastal socio-ecological systems, and various management goals of actors and stakeholders involved. Coastal governance may therefore be characterised as a 'wicked' problem since there is no clear agreement of what exactly the coastal problem is, and there is a level of uncertainty in the solutions (IPCC, 2014).

The GoV has established a number of ministries responsible for specific sectors such as fisheries,

agriculture, forestry, tourism, and environment (functional agencies). The management of the use, exploitation and protection of natural resources and environment in coastal and marine areas is divided among approximately 15 ministries, the dominant ones include MONRE; Agriculture and Rural Development; National Defence; Foreign Affairs; Construction; Transport; Industry and Trade; Planning and Investment; Science and Technology; Information and Communications; Finance; and Culture, Sports and Tourism (Pham, 2013). Additionally, 28 coastal provinces are also directly involved in coastal management issues under their geographical jurisdictions. Both sectoral and territorial approaches have been used in coastal management in Vietnam.

The first legal document relating to integrated management of marine resources and environmental protection of seas and islands is the Decree 25/2009/NĐ-CP approved by the GoV in 2009 (Vu, 2012; GoV, 2009b). To promote effective ICM implementation, the Prime Minister ratified Decision 23/2013/QĐ-TTg dated 26 April 2013, promulgating a coordination mechanism on the integrated management of natural resources and environmental protection in coastal areas (Pham, 2013).

The Strategy for ICM in Vietnam to 2020 with a vision to 2030 was approved by the Prime Minister under Decision 2295/QĐ-TTg dated 17 December 2014. The strategy calls for the development and institutionalisation of coordination mechanisms for local governments and public agencies in administering coastal issues; regulations on demarcating sea boundaries for coastal provinces and cities in order to identify their authorities and duties, and to minimise conflicts of interest among industries and provinces in using marine resources. It requires clear definition of responsibilities of each ministry and coastal locality, and facilitates the involvement of communities and civil society in ICM (GoV, 2014b).

In 2015, the National Assembly ratified the *Law on marine and island resources and environment*. This law provides for the integrated management of marine and island resources and the protection of the marine and coastal environment; rights, duties and responsibilities of organisations and individuals in the integrated management of marine and island resources and the protection of the marine and island environment in Vietnam. Integrated management of marine and islands resources consists of establishing and undertaking policies, mechanisms and tools for inter-sectoral and inter-regional coordination to ensure the effective exploitation and use of marine and island resources, maintaining functions and the structure of ecosystems for sustainable development (*Law on marine and island resources and environment 2015*). The law and its decrees and circulars, and the Strategy for ICM form a regulatory framework for ICM in Vietnam.

4.7. Climate Change Adaptation Research in and About Vietnam

Vietnam's high vulnerability to climate change is reflected in the interest of the climate change research community (Adger, 1999, 2006; Stern, 2006; Garnaut, 2008; Kelly & Adger, 2000; Zink, 2013; Lindegaard, 2013; Miller, 2014; Zimmer et al., 2015; Phuong et al., 2018). All of the five

IPCC Assessment Reports to date (1990, 1995, 2001, 2007 and 2014) referred to the case of Vietnam or the Mekong Delta due to its vulnerability to climate change.

The works by Adger (1998, 1999, 2000), either by himself or co-authoring, on climate change vulnerability (Kelly & Adger, 2000) and adaptation in Vietnam are a starting point for understanding many of the issues involved but are relatively outdated and did not focus on policy aspects of adaptation. Bruun (2012) conducted a study on climate vulnerability in central Vietnam, in which the author discussed causes of social vulnerability (e.g. environmental degradation, the side effects of the market economy) and underlying drivers of adaptation practices (e.g. foreign aid attraction, elite's interests rather than benefits of the vulnerable populations). Bruun (2012) agreed with Fortier (2010) in describing the situation in Vietnam as 'take a climate chance'. More recent research pays attention to CCA in the agricultural sector (Le, Li, Bruwer & Nuberg, 2014; Sen & Bond, 2016), while others show interest in the combination between adaptation and mitigation strategies (Dang, Michaelowa & Tuan, 2003; Thuy et al., 2014). There have been also a number of reports on climate change impacts and policies in Vietnam prepared by international development partners (e.g. WB, UNDP, UNEP, and ADB). However, these are mainly working papers rather than scientific research. None of the previous studies explicitly recognised that the MLG approach was employed in Vietnamese CCA policy implementation. This research is the first one doing so in the context of coastal Vietnam.

The Mekong region, owing to its high vulnerability to climate change (IPCC, 2007; 2014; MONRE, 2016) has attracted both international and domestic research. Eucker (2011) undertook research focusing on the relationship between poverty and vulnerability in the rural population of the Mekong river delta of Vietnam. However, this research is not specifically about climate change policy implementation. Wassmann, Hien, Hoanh and Tuong (2004) assessed the impact of sea level rise on the water levels in the Mekong delta using a hydraulic model. Tuan and Chinvanno (2011) discussed the changes in climate and flooding patterns that would affect agriculture, aquaculture, and water supply in the Mekong Delta. There is only one specific piece of research on climate change in the Red River Delta (Trinh, 2015), although this is single sector-focused and did not deal with CCA policy implementation.

Academic studies on climate change policy implementation in Vietnam are relatively rare. Fortier (2010) provided a procedural critique of political processes in the development of Vietnam's NTP-RCC. Zink (2013) analysed the politics of climate change in Vietnam with reference to climate policy process in Vietnam (both international negotiations and domestic policy actions). Zimmer et al. (2015) examined the underlying motivations for unilateral climate measures adopted in Vietnam with a focus on mitigation policy. This research is theory-driven (the multiple streams framework of Kingdon (1984)) however, it is focused on policy formulation rather than implementation. Tran (2016) investigated the implementation of climate change policy in Vietnam looking at adaptation in the agriculture sector at provincial and local levels. Although his PhD

research did not employ implementation theory, and mostly analysed a single program, the NTP-RCC, rather than providing a comprehensive analysis of the Vietnamese climate change policy system. Nguyen (2017) studied the planning process of climate change action at provincial level in Vietnam, however the implementation of adaptation policy was not the focus and it did not investigate the interaction between CCA and relevant sectors. Furthermore, Nguyen (2017) had a multi-level government lens rather than multi-level governance, the latter highlighting the role of non-state actors (e.g. NGOs) in climate change policy process, which was missing in Nguyen's work. More recently, Phuong et al. (2018) studied hierarchical governance of CCA in Vietnam in which the authors identified barriers and drivers that influence the policy capacity of political actors in CCA. This research focused on the agriculture sector and used interview methods to collect data within a single case study research design. The role of non-state actors in CCA process was not discussed.

At the time of this research, no previous work using a MLG approach has been applied to the study of CCA policy in Vietnam. This research with the application of MLG and implementation theories to climate change adaptation policy implementation in Vietnam may therefore help address a significant gap in the literature.

4.8. Chapter Summary

Researchers from the developed world often view Vietnam as a highly centralised state and an authoritarian regime, marked by hierarchical governance from the national to the commune level (Phuong et al., 2018; Biesbroek, Peters, & Tosun, 2018b). However, this is only a partial picture. Public policies and decisions are formulated and implemented through a complex process of vertical and horizontal consensus governance. The interplay among vertical lines of authority does exist but there are also horizontal interaction mechanisms among policy actors in place at all four administrative levels (McCarty, 2001; Shanks et al., 2004).

It is therefore important to avoid applying simplistic conceptions of top-down or bottom-up policy-making and planning systems in the Vietnamese context. Policies are arrived at through a complex process of vertical and horizontal consensus building (Shanks et al., 2004). Several Vietnamese public policy researchers have pointed out that the top-down and bottom-up conventional approaches in implementation do not entirely capture the factual day-to-day implementation of policy in Vietnam. In some cases, the observed approach is 'from-the-middle-out', in other words, the intermediate-level bureaucracies and bureaucrats play an important role in the policy process in Vietnam and significantly influence the implementation process (Asia-Pacific Institute of Management, 2015).

Major policy implementers are state agencies at central and local levels; political, economic and social organisations; and citizens. Feedback is provided by the media, international and national NGOs, research institutes and researchers. Policy implementation largely depends on the capacity and

legitimacy of provincial governments (middle-level authority) to adapt to national policies, which influence policy interpretation and outcomes on the ground (Shanks et al., 2004).

International actors play an important role in policy processes in Vietnam. Governments, especially in developing countries, often rely on international actors' expertise and finance in formulating and implementing domestic policies, e.g. the WB. When a policy field is in favour of external intervention, international actors can be expected to be an integral part of domestic policy (Howlett & Ramesh, 2003), e.g. climate change policies in developing countries. In climate change governance in Vietnam, these actors are development partners (e.g. JICA, WB, and the UNDP).

In unitary systems, the national government has all sovereign authority and local governments exercise only delegated power. The scope for autonomous action at inferior levels depends on the willingness of the central government to grant power and share financial resources (Henstra, 2016). Since 1986, Vietnam has seen greater decentralisation of state authority (fiscal, administrative, and political) from the central to provincial levels. There is also an extent of discretion and autonomy in the provincial authority implementation of national policies. Shanks et al. (2004) however, noted that the extent of decentralisation in Vietnam varies sector by sector and province by province.

Figure 4.5 provides a prescriptive model that illustrates how CCA policy *should* ideally be implemented in coastal Vietnam. It highlights the vertical and horizontal dimensions of policy implementation and is a multi-level, multi-sector, and multi-actor conceptual framework for studying CCA policy implementation in Vietnam. 'Multi-level' refers to the policy flow from the international level throughout national and local levels. 'Multi-sector' concerns the mainstreaming of climate change considerations into some sectoral policies. 'Multi-actor' denotes the involvement of different policy actors and stakeholders and their interactions in the CCA policy implementation process.

The issue of vertical and horizontal dimensions of policy implementation is relevant to the present research. Firstly, from a theoretical perspective, policy implementation is placed within broader MLG which highlights both dimensions in the policy process. Secondly, political and administrative practices in Vietnam evidenced a complex process of vertical and horizontal interaction and consensus building among multiple actors and stakeholders. Policy-making, planning and implementation systems are more complex than the top-down and/or bottom-up models in the policy implementation literature (Shank et al., 2004). As a policy field CCA constitutes a 'wicked' problem, cutting across sectors and jurisdictions. Climate change governance in Vietnam is also framed by both multi-sectoral climate change policies and legislation making its integrated assessment all the more necessary.

The GoV, MONRE and its affiliates at local level, play crucial roles in coordination of the CCA policy process. Governance and policy implementation of CCA does not exist in a vacuum but is embedded in existing institutional systems in a given society, such as Vietnam, and the broader political economy and development context. Vietnam has a unitary government system with the central government

(ministries) playing a key role in dealing with public problems. The state-centric governance paradigm remains dominant in Vietnam. The government mostly uses vertical governance instruments (e.g. grants, subsidies, taxes, regulation) to implement public policy. However, there is a shift, though slow, to interactive governance, evidenced by the increasing involvement on non-state actors in addressing public problems. Consequently, new policy tools have been introduced such as networks and partnerships (Peters & Pierre, 2015). It seems that in theory the governance process of public issues is more ‘state-centric’ but, as will be discussed in the coming chapters, reality shows evidence of interactive governance (e.g. the involvement of NGOs and international donors in CCA).

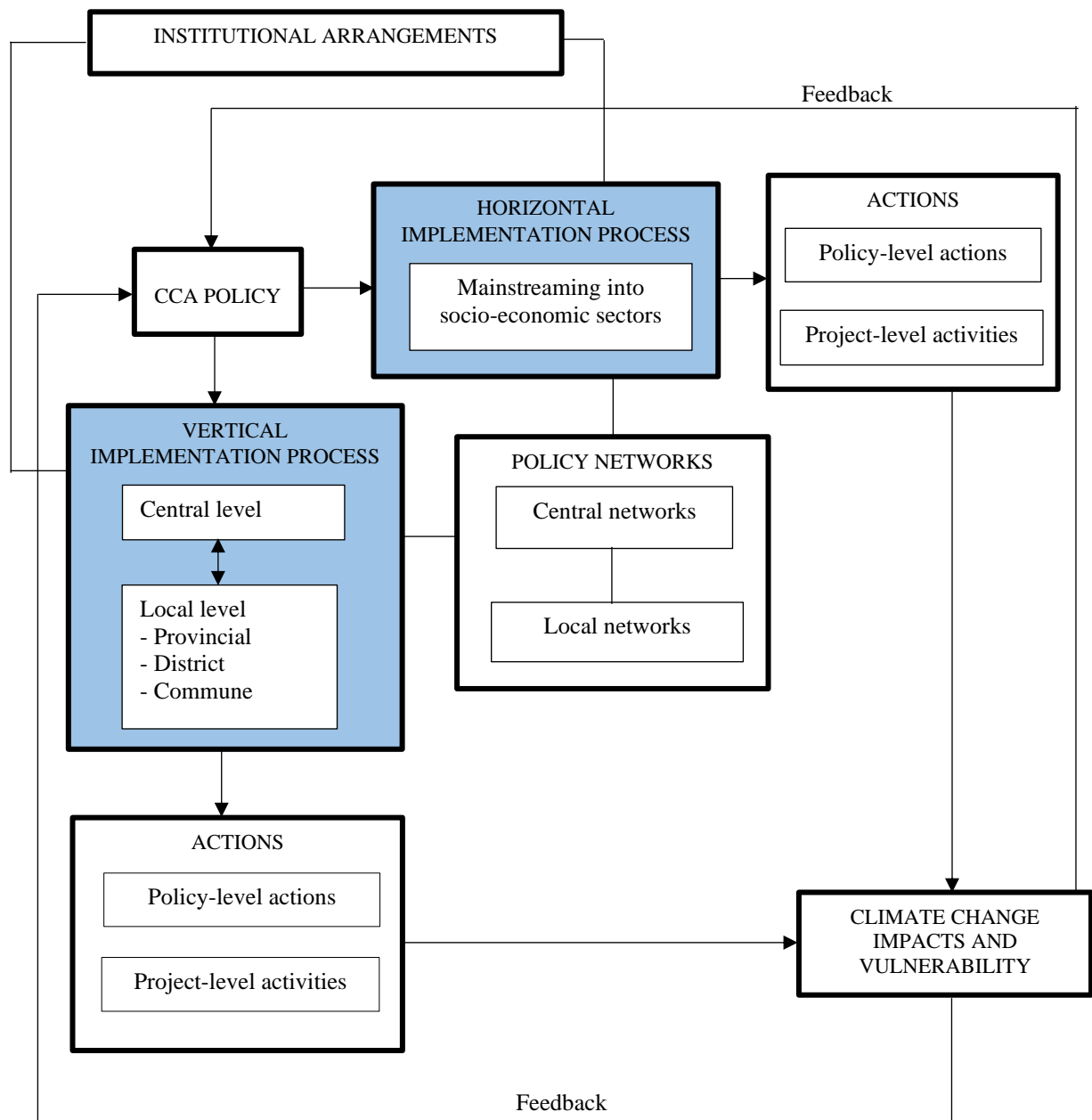


Figure 4.5: Conceptual framework used to study CCA policy implementation in Vietnam
(source: Author)

CHAPTER 5: METHODOLOGY

5.1. Introduction

The previous chapters discussed key concepts on multi-level governance (MLG), public policy implementation, climate change adaptation (CCA); and the context where CCA policy implementation study is conducted. This chapter presents the design and methods employed to explore those concepts, and to achieve the research objectives. Using the notion of the research ‘onion’ (Saunders, Lewis & Thornhill, 2009), the research methodology is briefly expressed through six ‘onion’ layers (table 5.1). These six ‘onion’ layers are integrated in the main chapter sections including philosophical position, research design, case study research strategy, multi-method qualitative studies, data collection and analysis, ethical considerations, researcher’s positionality, and summary.

Table 5.1: The six ‘onion’ layers of research methodology

1. Philosophy	Pragmatism/critical realism (a continuum between positivism and social constructivism).
2. Approach	Deductive and inductive (research was designed deductively; data were analysed inductively and deductively).
3. Strategy	Case study (two parallel study locations).
4. Choice of method	Multi-method qualitative studies.
5. Time horizon	Longitudinal (documents, 2008-2018) and cross-sectional (semi-structured interviews).
6. Technique	Document analysis and semi-structured interviews.

Source: Saunders et al. (2009)

5.2. Research Philosophy

Public policy implementation is marked by a diversity of research paradigms and methods (Hill & Hupe, 2002; Yang & Miller, 2008; Hupe, 2014; Saetren, 2014; see also chapter two). The research paradigm adopted in the present study is that of critical realism or real-world enquiry (Robson, 2011), also described as pragmatism (Saunders et al., 2009). Both deductive and inductive research traditions are employed.

According to Clement (2010), critical realism is an ontological approach, it acknowledges the use of biophysical data (biophysical world/real world) to understand environmental change (e.g. climate change) and the understanding or knowledge is also determined by social and political positions (social constructivism). Creswell (2014) states that under the interpretive tradition, perceived reality is subjective, may change and there can be multiple social realities. Hence, different people will have different meanings when experiencing a similar social phenomenon or event. This is relevant to CCA study, since there are

different understanding of CCA and various CCA options on the ground, which depend on CCA policy actors' values and interests.

Given (2008) states that critical realism is one of a range of post-positivist approaches positioned between positivism/objectivism and constructivism/relativism, it advocates that phenomena must be understood in the real world and attempts to understand its complexity, such as CCA as a 'wicked' problem. This approach guides the work to address real-world problems such as climate change impacts and vulnerability. In critical realism, different types of data can be based on to provide a case for explanation, including lay accounts from various groups (e.g. policy actors and stakeholders) or document analysis. The justification for this multiplicity is that each method can produce evidence of what is occurring in the world.

Pragmatism and realism are used interchangeably, they are seen as the intermediate position between positivism and social-constructivism research philosophies and as appropriate for finding answers to the questions central to the present research (Wilson, 2010). Having a pragmatic view on the subject under investigation assumes that there was adaptation occurring before the term was introduced (e.g. autonomous adaptations by farmers and firms), so as for implementation, there was implementation before the term was invented. In reality, there have been actions taken by the general public, firms, and government agencies to deal with adverse impacts of climate-related threats, however, such actions may not necessarily be named adaptation and may be implemented in the absence of government adaptation policies.

Holding a realist perspective, the multi-method qualitative choice embedded in case study strategy was applied. This strategy for realism is widely accepted in social science research (Sayer, 2000; McEvoy & Richards, 2006; Maxwell & Mittapalli, 2010; Robson, 2011). For example, Sanderson (2002) argues from a realist position, how policies achieve their effects through implementation and will be understood and explained by using a multi-method approach. A qualitative perspective assumes that knowledge is constructed through communication and interaction (VanderStoep & Johnson, 2009). Knowledge is created from perceptions and interpretations of individuals. This is highly relevant to CCA given the different perspectives of climate change risks.

This research has aspects of exploration, description, explanation and prescription. Exploratory studies typically focus on 'what'/'how' questions that the researcher uses to seek a better understanding of the issue of interest and to provide a starting point for further study. Descriptive examinations propose a description of a phenomenon within its context, where the investigator observes and then describes their observations (e.g. through case studies; focusing on the 'what' question). Explanatory research centers on 'why' questions and goes beyond exploration and description to investigate potential cause and effect relationships (e.g. why do local governments implement adaptation policies?) (Phillips & Pugh, 2005). In respect of the prescriptive/normative element, this research will also provide policy-makers with recommendations on CCA policy implementation and tackling barriers to adaptation policy implementation.

5.3. Research Design

A research design presents procedures to collect evidence about elements (variables) identified in the conceptual framework (Mitchell, 1989), a plan to get from research questions to conclusions (Tan, 2004) or the structure of a study of a research problem (Yang & Miller, 2008; Harwell, 2011). Based on the theories of MLG and policy implementation, the research is accomplished through a case study research strategy (coastal Vietnam), and multi-method approach (document and interviews) using multiple data sources (archives, respondents, and media).

This research is case-oriented rather than variable-oriented. The researcher uses thick description, followed by analysis and explanation of the implementation process of CCA policy in Vietnam with appropriate theories being used to explain observations. Ponterotto (2006, p.543) argues that “[t]hick description refers to the researcher’s task of both describing and interpreting observed social action (or behaviour) within its particular context. Thick description accurately describes observed social actions and assigns purpose and intentionality to these actions, by way of the researcher’s understanding and clear description of the context under which the social actions took place”. In the present research, the ‘social action’ is CCA policy implementation and the ‘context’ is coastal Vietnam. The conceptual framework created in the literature review helps guide further development of this research in the field by presenting the knowledge and relationships described in the literature review, and also assists as an instrument to ask questions and identify linkages rather than in the development and testing of hypotheses.

Figure 5.1 presents the research process as a progression of steps through the identifying the research problem, reviewing relevant literature (theory), generating conceptual framework (prediction), collecting ‘real world’ data (Vietnam, and its two coastal provinces) through documents and interviews, and analysing the collected data. Findings and discussion are then linked to the research problem, literature, and initial conceptual framework (confirming or disconfirming prediction, answering research questions, solving research problem).

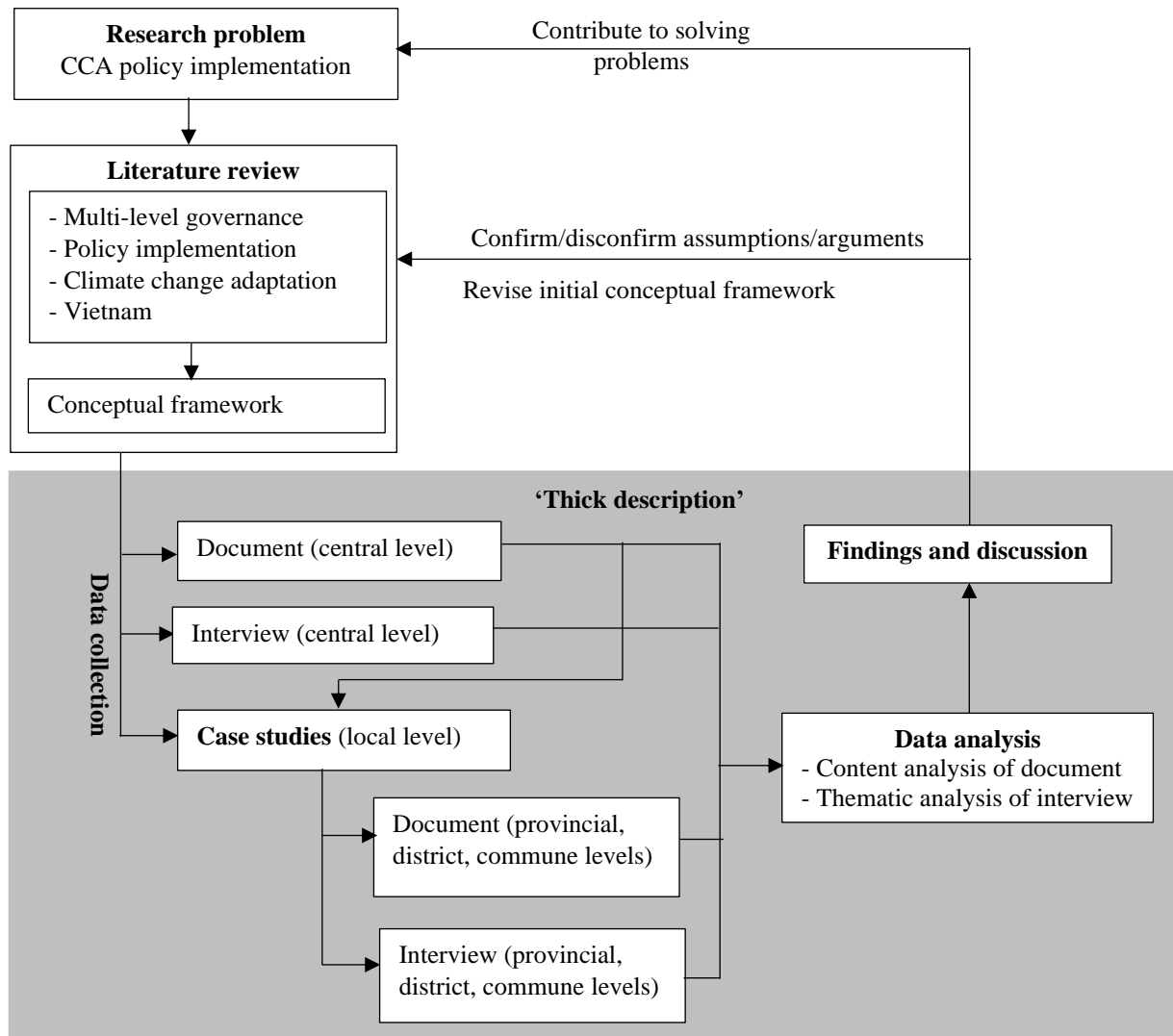


Figure 5.1: The research process and methods used for investigation (source: Author)

5.4. Case Study Research Strategy

The case study approach fulfils the three principles of the qualitative approach which are describing, understanding and explaining (Tellis, 1997). A nested case study approach (Keessen et al., 2016) is employed here to understand how CCA policy is implemented in four levels of government in Vietnam (national, provincial, district, and commune). The case studies are also used to test the conceptual framework (prediction) generated from the literature review.

The main research question, research paradigm (realism/pragmatism), and the policy field of inquiry (CCA as a ‘wicked’ problem) informed the choice of case study strategy. The central research question is how is CCA policy implemented in coastal Vietnam? With the ‘how’ question, the choice of case study approach in this research is appropriate. Yin (2009, p.2) states that “case studies are the preferred method when “how” and “why” questions are being posed, the investigator has little control over the events, and the focus is on a contemporary phenomenon within a real-life context”. An important benefit of a case

study approach is it offers many different sources of evidence (Yin, 2009), which is relevant to the multi-method design of the present research (Hartley, 2004). Although there are criticisms of case study research, such as it cannot be replicated, or findings cannot be generalised, case study as a research strategy has been widely applied in policy implementation studies with problems of replication and generalisation potentially being addressed by case selection strategies (Garson, 2002).

5.4.1. The case study in implementation studies

Case study research in public policy implementation has a long history (Perry & Kraemer, 1986; Agranoff & Radin, 1991; Garson, 2002; Saetren, 2014). Pressman and Wildavsky's (1973) seminal work on implementation was based on a single-case study. A review of implementation studies by Saetren (2014) showed the dominance of case study (both single and multiple cases) in implementation research. In discussing research methodology for CCA policy, Purdon and Thornton (2019) highlighted the value of case studies, noting the in-depth understanding of complex social processes they can bring, allowing researchers to focus on processes rather than the discrete behaviour of individuals or the impact of a particular policy.

Contextualisation is important for implementation theory and research and implementation is always connected to policies addressing specific societal issues (Hill & Hupe, 2002). Public policy implementation and CCA policy implementation have only received limited study in the developing world. In this research, the use of comparative cases serves to illustrate the implementation process and multiple levels of governance of CCA, thereby empirically showing the flow of CCA policy vertically from international to national and sub-national levels and horizontally across relevant sectors.

The purpose of the comparative case study approach is similar to that of other research methods, in that it is looking for patterns of variables and relationships (Agranoff & Radin, 1991). Comparative case studies are analogous to the multiple-case study discussed in Yin (2009). According to Stake (1995), the case may not be typical but can maximise what can be learnt from the phenomenon. Yin (2009) recommended that the design of two to three cases would be literal replications, meaning the results are predicted to be similar or slightly different but not contrasting (figure 5.2).

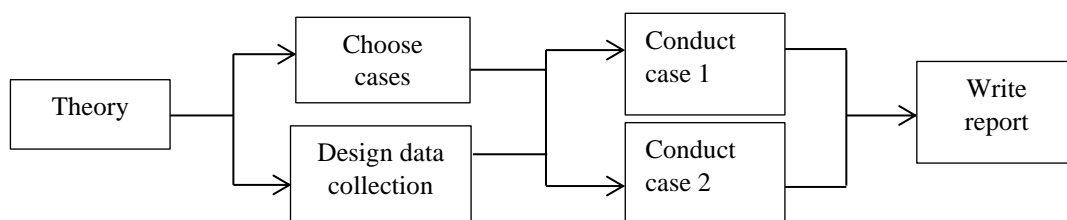


Figure 5.2: Literal replication approach to two case studies (source: Adapted from Yin (2009))

This research is case-oriented rather than variable-oriented and therefore uses thick description rather

than statistics. The focus is not on variables but two individual cases and their context (Ragin, 2014). Findings of multiple-case studies are regarded as more robust than single-case studies (Yin, 2009). According to Patton (2002), the number of cases included in a multiple case study depends on the research purpose and availability of resources (time and money). This research selected the simplest multiple-case study design with two cases (Yin, 2009), being literal replications (cases were designed to corroborate each other; similar treatment in each case, results in each case are not contrasting), with outcomes relating to the ‘how’ question - how is CCA policy implemented in coastal Vietnam?

5.4.2. The two case study sites: Hai Phong and Soc Trang

In this research, two case studies were chosen from 28 coastal provinces in Vietnam: Hai Phong city and Soc Trang province (figure 5.3). Each case produced a context-situated report, with a cross-case analysis undertaken to look for patterns. These were parallel cases for literal replication (Yin, 2009). According to Vogel and Henstra (2015), such comparative analysis of policy goals in different communities are necessary to build contextual knowledge about local CCA objectives.

As noted in chapter four, several Vietnamese and international public policy researchers have pointed out that the top-down and bottom-up conventional approaches to policy implementation do not fully capture Vietnamese practices; in some cases, the observed approach is ‘from-the-middle-out’. In other words, intermediate-level bureaucracies and bureaucrats play an important role in the policy process in Vietnam and may significantly influence implementation (Asia-Pacific Institute of Management, 2015; Shanks et al., 2004; de Oliveira, 2009). For example, Vogel and Henstra (2015) state that local officials play a key role in public functions that are central to CCA. Similarly, in a study of development and climate change in the Mekong River Delta, Eucker (2011) commented that leadership at the provincial level is a critical determinant on how policies are interpreted and put into effect. These observations reinforce the rationale for the selection of the two study locations of Hai Phong city and Soc Trang province, which provide access to the ‘middle’ of the Vietnamese administrative system of provincial/municipal, district and commune.

The selection of the two case studies was criteria-based (vulnerability, socio-economic factors, and geographic locations) and purposeful. Hai Phong is a coastal city, located in the northern region of Vietnam (Red River Delta). Hai Phong’s economy is more developed compared to other coastal cities/provinces in Vietnam. In contrast, Soc Trang province is located in the southern region of Vietnam (Mekong River Delta) and is considered among the poorest coastal provinces (table 5.2). In respect to the potential impacts of climate change, the Mekong River Delta is widely recognised as a highly vulnerable region. Soc Trang is therefore more susceptible to climate change related risks than Hai Phong (MONRE, 2016). Hai Phong and Soc Trang are also located in two different climate change regions. The actual impacts of climate change are different in the two localities with respect to climate related hazards, Hai Phong has more problems with tropical storms while Soc Trang confronts saline intrusion, flooding, and drought. Theoretically these different impacts together with different

socio-economic development levels might lead to different CCA measures being adopted in the two case study sites. Figure 5.3 shows the locations of Hai Phong city and Soc Trang province in Vietnam's map.

Table 5.2: Criteria for case study selection

Coastal province	Coastline (km)	Population (2015, million)	Poverty rate (2015, % of population)	Average income rate (2014, person/month, USD)	Land area inundated with 100 cm sea level rise (%)	Geographical location
Hai Phong	125	1.963	2.9	185	30.2	Red River Delta, Northern Vietnam
Soc Trang	72	1.311	12.0	90	50.7	Mekong River Delta, Southern Vietnam
Total Vietnam	3,200	91.713	7	120	unavailable	

Source: Data compiled from the General Statistics Office of Vietnam (2017a); MONRE (2016)



Figure 5.3: Geographical locations of Hai Phong city and Soc Trang province (source: Adapted from <https://map.comersis.com/carte-Free-editable-map-of-Viet-Nam-cmhfa56o302.html>)

The selection of the two cases was not convenience sampling but criteria-based and purposeful. Sampling bias was minimised by using criteria to select cases; biases will also be acknowledged when generalising findings (from two cases to coastal Vietnam and coastal developing countries). However, given that this research was conducted in Vietnam, a unitary government system within an authoritarian regime the public governance of CCA in the twenty-eight coastal provinces is assumed not to be greatly divergent.

There are limited CCA studies in both Hai Phong and Soc Trang. These two sites are also considered two of the most vulnerable in the country (Hanson et al., 2011; Tamura, Yasuhara, Ajima, Trinh & Pham, 2018), so the findings of the research project will be consequential for understanding Vietnam's approach to CCA as a whole.

5.5. Multi-method Qualitative Studies

5.5.1. Rationale for the research method choice

Combining interviews and document analysis ensures the robustness of research findings. Interviewing non-state actors also helps understand how other policy actors perceive the CCA policy process governed by public agencies and their officials. Researchers holding pragmatic/realist positions often employ multiple methods (Saunders et al., 2009).

Creswell and Clark (2007) recommend researchers distinguish between multi-method studies in which multiple types of qualitative or quantitative data are collected and mixed-method studies that include collection of both qualitative and quantitative data. In this research, the multi-method qualitative studies method was used. Initially, it was designed as a mixed-method research however, during the first period of fieldwork, it was decided to exclude the survey. This reflects a pragmatic perspective and demonstrated a flexible research design which can be adjusted depending on actual circumstances. The survey method was dropped because in the Vietnamese research context, where key informants were government officials, experience showed that the survey response rate would be low especially as the researcher was unable to meet every informant to conduct the survey face-to-face. However, surveys via emails in Vietnam are often ignored by officials (Napier, Hosley & Nguyen, 2004; Nguyen, 2015).

Public policy is broader than legislation and executive orders and extends beyond the formal records of governmental decisions. Albeit the existing policy documents are a critical source of information, the analysis of the choices involves the study of the complex interaction of state and societal actors (Howlett, 1986). Description helps answer the 'what' question, however, there is a need to understand why the government did what it did. In fact, sometimes the reasons for a governmental decision are obvious and stated publicly, however, there are cases when reasons are hidden and cannot be detected solely by observations. This makes the task to answer the 'why' question in public policy studies more difficult. The use of a multi-method approach to this research developed in response to such issues.

Document content analysis is therefore buttressed by semi-structured interviews in order to assist with the validation of findings (Garson, 2002).

5.5.2. Units of analysis

The appropriate selection of unit of analysis in a research is critical. The unit of analysis is the actual source of the information (Yin, 2009). Hill and Hupe (2003) claim that an implementation researcher may wrongly locate the loci since what happens in that loci is not implementation but formulation. Similarly, with the introduction of the implementation structure concept (a cluster of actors), Hjern and Porter (1981) argue that the deficits in policy implementation are attributed to and exaggerated by analytical frameworks using organisations or individuals as the basic unit of analysis.

The study of CCA policy implementation process in the present research is undertaken through the MLG lens. Documents and interviews were collected and conducted at national, provincial, district, and commune levels in coastal Vietnam. It is also noted that both Hai Phong city and Soc Trang province have three levels of government embedded in their governance structures. Therefore, the multi-level unit of analysis was applied, in other words it is the spatial unit of analysis, crossing four administrative levels in Vietnam. The spatial unit of analysis also helps avoid the pitfall of arbitrarily distinguishing between policy formulation and implementation (Majone, 1989; Howlett & Ramesh, 2003). Moreover, this choice responds to one of the main research objectives - investigating how CCA policy is transferred and transformed from national level to local level in Vietnam.

5.6. Data Collection

5.6.1. Sources of data

There were three main sources of data including (1) archives in government agencies, e.g. policy texts, reports, plans, project documents and other forms of physical documents relating to CCA policy filed in public agencies; (2) formal and informal interview respondents, e.g. national and local government officials, researchers, members of NGOs and international donors, where both formal and informal discussions with research participants provided information and insights; and (3) media available on the Internet, which varied in types from online newspapers to official websites of public agencies, research institutes and universities. The use of multiple sources of evidence helps address the research issue comprehensively and triangulate collected data (Yin, 2009). Glesne (2006) suggests that the more data sources, the richer data and more reliable the research findings. However, there are challenges in relation to selection of relevant information for the research topic, and data analysis within the defined time frame of a doctoral program.

5.6.2. Collection of documents

Documents are regarded as sources of data which supplement the data obtained from interviews (Yin, 2009). Multiple document sources are essential to have a comprehensive view of organisations and their operations (Bryman, 2016) and allow the researcher to trace change over time (Marshall & Rossman, 2006).

Publicly issued policy and legal documents represent a clear commitment by the issuing agencies to address climate change issues. Documents were collected from either organisation's webpages (government agencies, international bodies, universities) or directly provided by respondents (archives). A common question asked by the participants in interviews, especially with government officials, was 'what documents do you need?' This partly comes from the mindset in Vietnam that information and knowledge are often in the form of formal documentation (books, published papers, writing), not in the perceptions of people (verbal discussion is unofficial), and partly from a reluctant attitude of government officials to share personal views on issues relating to statecraft.

A main source of secondary data were documents filed in key government agency archives or published on their websites, such as MONRE, the Ministry of Planning and Investment (MPI), the Ministry of Agriculture and Rural Development (MARD), and their respective provincial Departments in Hai Phong city and Soc Trang province. Besides policy texts, there were periodic reports filed at MONRE, which were submitted by line ministries and provinces in relation to the progress of implementation of national CCA policy, plans, and strategies. These reports contained important information and data on climate change related projects, annual budgets, implementation constraints, and recommendations from provincial and sectoral authorities. The data range was from 2008 to 2018. The reason for this was because the first national climate change policy in Vietnam was introduced in 2008. However, some policy and legal documents, which had been approved before 2008 and after 2018 but are currently taking effect, were also included.

Financial data was useful since public expenditure (e.g. annual budget allocated for climate change related projects of a public agency) quantifies governmental/political commitment to address climate change impacts. If an authority is interested in CCA, it should allocate budget to carry out relevant activities. These data were collected from two departments in MONRE (the Department of Planning and Finance, and the Department of Climate Change), and relevant provincial departments in Hai Phong and Soc Trang. As mentioned in chapter four, the project-level activities are crucial to realise policy objectives, as these projects can only be implemented when funds are allocated.

At the national level, the researcher contacted MARD for data on CCA in the agricultural sector (mainstreaming climate change into forestry and disaster management) and the MPI for data on climate change mainstreaming into national socio-economic development plans. The other two policy

sectors including water management and integrated coastal management are all under the administration of MONRE.

In respect of the two case study locations (Hai Phong city and Soc Trang province), the researcher contacted relevant departments such as Natural Resources and Environment; Agriculture and Rural Development; Planning and Investment; and social-political organisations (Women's Union). Data collection at provincial level, similar to that of line ministries, was challenging however, owing to the complex administrative procedures, and unfamiliarity of sharing information with researchers in Vietnam. Nevertheless, the same document types were included in each case study to provide for appropriate comparison.

In respect of sample size, the coastal context limits the policy sectors of concern in this research. However, within the availability of resources, the researcher focused on five types of policies, which are mostly important in coastal management and closely linked to CCA policy: socio-economic development plans; water resources sector; integrated coastal management; coastal forest development; and disaster management. The contents of these sectoral policy documents were analysed to understand the degrees of CCA mainstreaming and provide the horizontal dimension of CCA policy implementation. All climate change policy documents in Hai Phong city, and Soc Trang province were studied to see the transmission of general national policy frameworks into specific provincial policies. This investigated the vertical dimension of CCA implementation. The five sectoral policies and their respective management agencies where documents were collected are listed below.

Table 5.3: The five sectors to be studied CCA mainstreaming

Sectoral policy areas	Main policy texts	Coordinating agency			
		National level	Provincial level	District level	Commune level
Socio-economic development plans	Planning Law 2017	Ministry of Planning and Investment (MPI)	Department of Planning and Investment (DPI)	Division of Planning and Finance	Individual cadres
	The national socio-economic development strategy (two documents: 2001-2010; 2011-2020)				
	The national social-economic development plan (three documents: 2006-2010; 2011-2015; 2016-2020)				
	The provincial social-economic development plans in Hai Phong and Soc Trang (two case studies)				
Water use plans/policies	The Law on water resource 2012	Ministry of Natural Resources and	Department of Natural Resources	Division of Natural Resources	Individual cadres

Sectoral policy areas	Main policy texts	Coordinating agency			
		National level	Provincial level	District level	Commune level
Integrated coastal management (ICM) policies	The national water resource strategy towards 2020	Environment (MONRE)	and Environment (DONRE)	and Environment (DIONRE)	
	The provincial water use plans, policies, regulations in Hai Phong and Soc Trang	(Department of Water Resource Management)			
	The Law on marine and islands resources and environment 2015	Ministry of Natural Resources and Environment (MONRE)	Department of Natural Resources and Environment (DONRE)	Division of Natural Resources and Environment (DIONRE)	Individual cadres
	The national ICM strategy to 2020 vision to 2030	(Vietnam Administration of Sea and Island)	Division of Seas and Islands (DSI)		
	The national action plan to implement the National ICM Strategy by 2020 vision to 2030				
Forest development plans/policies	The provincial ICM policies in Hai Phong and Soc Trang				
	Law on forest protection and development and 2004; Law on forestry 2017	Ministry of Agricultural and Rural Development (MARD)	Department of Agricultural and Rural Development	Division of Agricultural and Rural Development	Individual cadres
	The national strategy on forest development from 2006 - 2020 (No. 8/2007/QĐ-TTg)	(Vietnam Administration of Forestry)			
	The governmental decree on some policies to manage, protect, develop coastal forest for climate change adaptation (No. 119/2016/NĐ-CP)				
	The provincial coastal forest development plans, policies in Hai Phong and Soc Trang				
Disaster management policies	Law on natural disaster prevention and control 2013	Ministry of Agricultural and Rural Development (MARD)	Department of Agricultural and Rural Development	Division of Agricultural and Rural Development or Division of Economic Affairs	Individual cadres
	National strategy for natural disaster prevention, response and mitigation to 2020				
	Provincial/municipal plan for natural disaster prevention, response and mitigation				

The choice of the five sectors was purposeful. The United Nations Framework Convention on Climate Change (UNFCCC) text mentioned three sectors in its Article 4, requesting parties to develop integrated plans for coastal management, water resources and agriculture, thereby mainstreaming measures to facilitate adequate CCA in these sectors. Domestically, Vietnam's CCA policy, strategies, plans, and programs emphasise the considerations of CCA in key sectors, for example, the Support Program to Respond to Climate Change (SP-RCC) in 2009 listed the following sectors: water; integrated coastal management; disaster prevention; forestry; transport; construction; healthcare; and socio-economic development.

Documents were classified into executive or administrative documents (strategies, plans, programs) and legal documents (constitution, laws, decrees, circulars and other forms of statute) and by policy sectors. Non-governmental documents also provided significant insights for understanding the involvement of non-state actors in the CCA policy process, from policy-making to implementation.

There are limitations in depending on document analysis to gain knowledge of the actual CCA policy process in practice. Government documents tend to over report government-driven and planned adaptations, leaving limited or even no room for autonomous adaptations, thus portraying a skewed picture of actual adaptations taking place in reality. Many adaptation measures have been implemented by the private sector (e.g. farmers and firms) and formal reports of public agencies often only focus on what the state is doing to address climate change impacts, not on all adaptation efforts of the whole society. Another problem is governments may relabel existing policies as new adaptation initiatives and successful CCA measures are frequently circulated in different reports. Acknowledging these limitations of formal document analysis, CCA policy researchers therefore use interviews and other methods, such as direct observation, to obtain more comprehensive insights (Biesbroek et al., 2018a; Fleig, Schmidt & Tosun, 2017; Broto & Bulkeley, 2013).

5.6.3. Semi-structured interviews

Interviews are regarded as an effective method of gathering information about people's knowledge and opinions (Thomas, 2003). The goal of an interview is to see the research topic from the perspectives of interviewees (King, 2004) (understanding perceptions of policy actors is the third objective of the present research). In case study research, interviews are one of the most significant sources of information (Yin, 2009). Semi-structured interviews were used since they allow common issues to be discussed while providing the flexibility for respondents to talk more broadly. Additionally, this interview technique can produce a rich source of information (Gillham, 2000).

In respect of sampling, a non-random method was used and participants were selected intentionally. Interview sampling is often purposive rather than random (Miles & Huberman, 1994). Interviews did not just occur in the definable geographic boundaries of the two study locations (Hai Phong city and Soc Trang province) but included those at the national level (in Hanoi, the capital city of

Vietnam). Interviewees were chosen to represent all four levels of government in Vietnam (national, provincial, district and commune). Except for the national level, the other three levels are nested within each case study. The MLG perspective drove the selection of ‘multi-level’ respondents (spatial unit of analysis). The bottom-up approach to implementation studies influenced the inclusion of interviewees at district and commune levels. As Barrett and Fudge (1981) argue, the day-to-day work of street-level bureaucrats is about policy implementation. The choice of informants is therefore in line with the principle that sampling should be theoretically driven (Miles & Huberman, 1994).

Government officials play a central role in implementing public policy and CCA policy in particular. The link between government officials’ perceptions of CCA policy implementation is that their understanding, attitudes, and interest in relation to climate change risks and adaptation will influence their day-to-day activities in the agencies they work for. Howlett (2019) states that bureaucrats are the most important actors in public policy implementation. Previous research shows limited discussions on government officials’ perceptions on CCA issues and policy actions. The present research therefore devotes itself to this population whose work relates to CCA policy at all four administrative levels in Vietnam. The other important group of informants is non-government officers who work outside the machinery of government. Their opinions are valuable to triangulate with those of public servants.

Interviews were structured around research questions, main topics, specific questions and probes. Since the interview process was divided into two rounds, an interview in the first round with a colleague from MONRE was used as a pilot interview. After making some minor adjustments, 54 interviews with 45 research participants were conducted, including nine follow-up interviews. In the first round of fieldwork from July to September 2017, there were 28 interviews of which eight were allowed to be digitally recorded. In the second fieldwork period from July to September 2018, 26 informants were interviewed, with 21 being recorded. Notes were also taken. Six informal discussions with respondents without note-taking or recording were undertaken in the first period of fieldwork. There were ten research participants in Hai Phong city and 17 in Soc Trang province.

By designing the data collection process into two stages, trust was developed with research participants and consequently, the number of recordings increased drastically in the second fieldwork period. Building trust with Vietnamese informants is critical in order to make full use of interviews. Zink (2013), for example, reported that he only recorded interviews with participants in the second or third time of meeting. Other social science research, even conducted by Vietnamese, also reports problems with recording interviews (Scott, Miller & Lloyd, 2006; Nguyen, 2015).

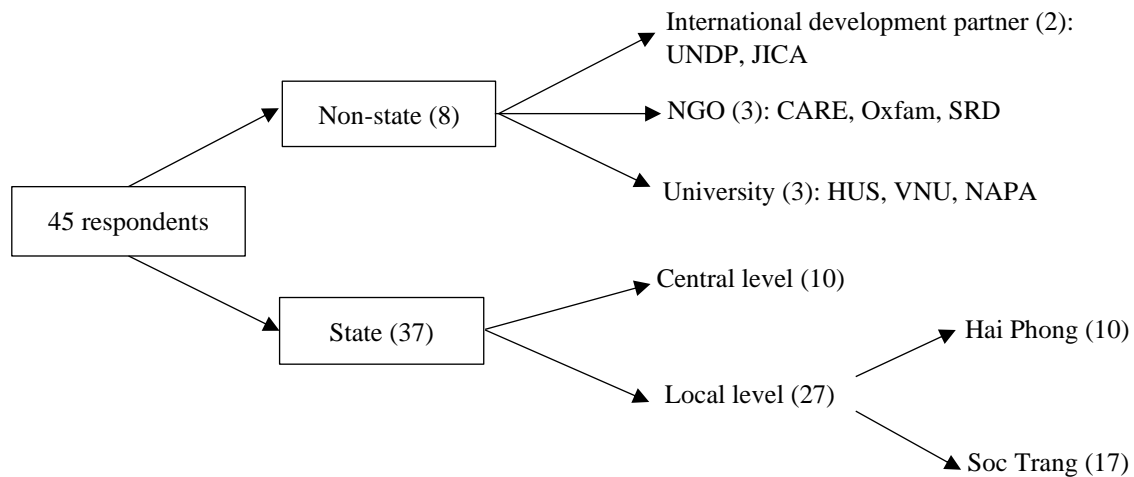


Figure 5.4: Map of 45 research participants (source: Author)

In round two, some themes that emerged from round one were investigated further such as development and CCA, and disaster risk reduction (DRR) and CCA. This meant that in the second round, disaster became an area of attention instead of tourism, which also reflects the study's pragmatic perspective.

Across four levels of government, there were three groups of research participants. One group was government officials working in the natural resources and environment sector (working for MONRE and its subordinates; they are seen as the CCA policy-makers, coordinators, and also implementers depending on their job positions). Another group was those outside the NRE sector but who remain in public agencies, the intention here was to know their perspectives on climate change policy made by those in MONRE. This second group also provided data relating to CCA mainstreaming questions (horizontal implementation). Those outside the MONRE network are actually the major implementers of CCA policy, their perspectives are therefore critical. The last group was researchers at universities and representatives from relevant NGOs and international organisations (e.g. UNDP, Care International). Research participants in the first two groups were all government officials whose work related directly or indirectly to climate change policy. However, their positions and specific day-to-day tasks vary within an agency and between agencies leading to different perceptions among state officials on CCA policy related issues. The eight non-governmental informants provided independent critiques on what the GoV has been doing to adapt to climate change impacts. Interviewing officials at multiple levels of government and those working outside the government also helps minimise bias effects (Gilfillan et al., 2017).

According to MacDougall and Fudge (2001), one of the best methods to recruit in-depth interview participants is through existing organisations and networks, making use of the assistance of a

contact person to gain access to other organisations. When in the field, the assistance of some interviewees in MONRE and two DONREs in Hai Phong and Soc Trang was enlisted to gain access to other respondents. With respect to non-state actors, one NGO was contacted directly with potential entry to other relevant organisations being enabled via the interview process. ‘Financial investments’ were sometimes used to ‘negotiate’ with research participants (see Gillen, 2012). The eight interviews with non-government respondents were beyond initial expectation. At the local level, especially in Soc Trang province, besides the advantage of an ‘insider’, trust was also developed with research participants via alcohol drinking. The ‘investment’ and drinking during fieldwork is (officially) uncommon in scientific data collection in Western society but is a ‘normal’ experience during fieldwork in Vietnam (Napier et al., 2004; Gillen, 2012, 2016).

Table 5.4: Interviewees at four government levels

Level	Places of interviews	Number of respondents (45)
National	Hanoi: ministries; international organisations, NGOs, universities	18
Provincial	Hai Phong city; Soc Trang province	14
District	Vinh Chau district in Soc Trang province; Do Son district in Hai Phong city	8
Commune	Vinh Hai, Phuong 1, and Phuong 2 communes in Vinh Chau district; Bang La and Ngoc Xuyen communes in Do Son district	5

Source: Author

In the two case studies, there were more research participants in Soc Trang province than in Hai Phong city because of easier access to government officials. This issue was mentioned in an interview with a respondent working at a government ministry in Hanoi, who commented that there was a difference with respect to the working attitude of government officials between ‘city’ and ‘province’. The former is often more bureaucratic. It is also a common mindset among respondents that people in the southern Vietnam are more open-minded and friendly. Table 5.4 presents interviewees at all four administrative levels in Vietnam (for a full list of interviewees and their respective agencies see Appendix B).

5.7. Data Analysis

The 2-T (talks and texts) research design provided rich data. The analysis is based on a qualitative descriptive approach (thick description and explanation) and a comparative perspective which is used in order to identify the similarities and differences between the two case studies, two groups of state and non-state interviewees, and documents and interviews.

5.7.1. Content analysis of documents

There are two categories of documentation: (1) documents specifically focusing on climate change (e.g. the National Climate Change Strategy), with two sub-categories, legal documents and executive documents and; (2) documents in the examined sectors, which are also classified as legal or executive documents. In the social sciences, there are various definitions of content analysis, and a wide range of analytical techniques have been named as content analysis. Weber (1990) describes content analysis as a research methodology that utilises a set of procedures to make valid inferences from document. Content analysis is commonly used in political science as a method to analyse policy texts. According to Neuendorf (2016), content analysis is a summarising process that a researcher can employ to obtain key meaning from the studied documents. Hsieh and Shannon (2005) classified three approaches to qualitative content analysis including conventional, directed and summative. In conventional content analysis, codes are derived directly from policy texts. With a direct approach, analysis begins with a theory or relevant previous research findings as guidance for initial codes. A summative approach concerns with counting and comparisons of keywords or content, followed by interpretation of the underlying context. The summary content analysis (close reading rather than coding) of documents is relevant in the present research. The direct approach is valuable in situations where some concepts were linked to sections of policy documents, for example, scanning a policy text may find some paragraphs mentioning or implying CCA mainstreaming, such text segments may then be labelled 'mainstreaming'. Coding was only employed for interview data (see section 5.7.2).

Quantitative content analysis

Quantitative content analysis of policy documents was used to examine the mainstreaming of CCA into five sectoral policies (social-economic development plan (SEDP), water, coast, disaster, and forestry management). It quantified the extent of mainstreaming of climate change into these sectoral policies. For example, the frequencies of key terms such as 'climate change', 'adaptation', 'sea level rise', 'vulnerability/vulnerable' in the current national SEDP 2016-2020 shows the extent of concern and the level of mainstreaming of CCA into national socio-economic development.

The key policy texts are in Vietnamese language. The degrees of mainstreaming were quantified and compared, with the pattern of mainstreaming detected by comparing the integration of climate change consideration into a particular development plan throughout different time horizons, e.g. the SEDP of Hai Phong in three periods: 2006-2010; 2011-2015; 2016-2020. Some sectors were more active than other in taking CCA actions. There was no evidence of mainstreaming in some sectoral policy texts. Finding the pattern is necessary but not enough, further steps need to be taken to explain the observed patterns including qualitative content analysis and informant interviews.

Key words in the present research were used to examine mainstreaming of CCA in to five sectoral policies: 'CCA' (*thích ứng biến đổi khí hậu*); 'climate adaptation' (*thích ứng khí hậu*); 'climate

resilient’ (*chống chịu khí hậu*); ‘climate change response’ (*ứng phó biến đổi khí hậu*) (a policy document may also implicitly mention climate change response, which implies both mitigation and adaptation); and ‘climate change impact’ (*tác động của biến đổi khí hậu*), and ‘climate’ (*khí hậu*) e.g. climate monitoring contributes to information on climate and climate changes which are inputs for CCA. Note that word frequency is one way to learn about mainstreaming, other indications are perceptions of sectoral officials on climate change related issues, existing CCA policies in a sector (e.g. if the agriculture sector adopted its climate change action plan), and institutions established to coordinate sectoral adaptation actions.

Qualitative content analysis

This analytical method focusses on the content and contextual meaning of the policy texts. The method goes beyond merely counting words as in the previous section, with the two groups of policy documents on climate change policy and sectoral policy being treated differently.

Group 1: Climate change policy documents

In consideration of each selected policy document, the key contents such as objectives, solutions, implementation arrangements, and financial resources for implementation were examined (see table 5.5 for more policy contents to be investigated). Mandates and organisational structures (institutional arrangements) of relevant government agencies, as well as other groups of actors, working on climate change governance were examined. These are the existing formal structures created not only for CCA policy implementation but other public issues. Scanning documents also helped identify actors and stakeholders in the CCA policy implementation process that form policy networks in CCA implementation in Vietnam. Policy actors are often clearly stated in policy texts however, stakeholders are less visible, which required further investigation. The purpose is not only to find and name them, but explain the reasons for their involvement in the CCA policy implementation process and how they could influence this process.

The policy contents were analysed and compared based on the fundamental elements of policy content (Vogel & Henstra, 2015) and consideration of the common contents of a policy text in the Vietnamese context and previous studies of CCA policy in Vietnam (Nguyen, 2017) (table 5.5).

Table 5.5: Elements of a policy text to be analysed

Policy content	Description
Policy goals and objectives	Goals can be as broad as the definition of CCA in the literature (reducing vulnerability and impacts) as well as precise, operational objectives.
Instruments and solutions	How to realise the set objectives, approach to CCA, and adaptation options.
Implementation arrangements	The section ‘implementation arrangements’ in each policy document directly provides answers to questions on how the policy should be implemented, including coordination mechanisms among relevant state agencies. This element helps identify actors taking the

	lead role in implementing this policy, and stakeholders having to participate in the implementation process.
Implementation budgets	Estimated budget to implement the policy, sources of funds.
Timeline	Long-term or short-term?
Evaluation and monitoring	Are there any available indicators to track implementation progress, and mechanism for reporting?

Source: Adapted from Vogel & Henstra (2015) and Nguyen (2017)

Group 2: Five sectoral policy documents: SEDP; water; coastal management; forestry; and disaster management.

The text segment (sentence or paragraph) where these keywords/terms occurred was copied to a spreadsheet to further examine the context surrounding its use. Three levels of mainstreaming are identified (Rosendo et al., 2018; Nguyen et al., 2017) (table 5.6).

Table 5.6: Three levels of mainstreaming extent

Extent of CCA mainstreaming	Description
Level 1	Adaptation was simply mentioned, the sectoral policy text used the CCA related terms.
Level 2	The document specified actions to be taken in relation to CCA, it identified specific CCA measures.
Level 3	Resources were allocated to implement the actions, the policy text contained on-the-ground CCA projects.

Source: Adapted from Rosendo et al. (2018); Nguyen et al. (2017)

5.7.2. Thematic analysis of interview data

The interview data were subjected to a thematic analysis to identify and report themes in line with MLG and the implementation of CCA. According to Braun and Clarke (2006) themes capture something critical and prevalent in interview transcripts that relate to the research questions. Themes were identified through thorough reading and re-reading of the interviews' transcripts to form a comprehensive picture of the participants' collective experience, positions, perceptions and knowledge (Aronson, 1995; Braun & Clarke, 2006).

Recorded interviews were transcribed and field notes and memos were typed into word documents, with each interview organised in a separate word file for the coding process (in Vietnamese). Coding is "naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data" (Charmaz, 2014, p.43). Coding partly depends on whether themes are data-driven or theory-driven. In the former, themes arise from actual data, in the later, researchers approach data with

some pre-concepts (Robson, 2011). Some of the themes in this research are identified based on the literature. The coding process organises rich texts into fewer categories, which are patterns or themes. The relationships among these categories are then identified (Saldana, 2009; Weber, 1990).

Manual coding was employed instead of computer-assisted coding. Each interview was coded for themes in relation to the research questions. According to Seidel and Kelle (1995) a manual approach allows the researcher to constantly work with the raw data, while computer-assisted coding often leads to the separation of the researcher with their original data sets, and an over-emphasis on codes rather than the contexts of codes. Brown, Taylor, Baldy, Edwards and Oppenheimer (1990) highlighted that software programs sometimes fail to recognise where respondents may have used different words to report similar phenomena, which could influence how the data are coded, analysed and interpreted. Additionally, almost all interviews were conducted in Vietnamese (only one interview in English), therefore in order to use coding software, interview transcripts would have to have been translated into the English language which would have been time-consuming with respect to 54 interviews and which may have provided for loss of nuance in meaning in the translation process. Manual coding is frequently used with respect to CCA studies (e.g. Trinh, 2015; Ayers, 2010; Eckersley, 2016). The choice of manual or computer-based coding is also simply the personal preference of the researcher (what works for whom, in what circumstance).

In this research, the researcher employed four coding methods: In Vivo coding; process coding; descriptive coding; and values coding. With respect to In Vivo, a code is a word or terms used by participants themselves, In Vivo codes are put in quotation marks. Process coding uses gerunds ('-ing' word) exclusively to connote action in the data (search for ongoing action/interaction). Descriptive coding summarises in a word or short phrase, most often as a noun, this is the basic topic of a passage of qualitative data. Values coding is the application of codes on interview data that reflect participants' values and attitudes, showing their perspectives. The four methods can be grouped as Initial Coding, the next level of coding is Focused Coding which develop major themes from data (Saldana, 2009; Charmaz, 2014).

Based on suggestions by Saldana (2009) and Liamputtong and Ezzy (2005), the manual coding process conducted is presented in figure 5.5. Data were processed in word documents with pages divided into four columns: raw data, memo, code and definition, and jottings (from left to right, jottings were produced by the comment function of the word document). Only the raw data are in Vietnamese; memos, codes, and jottings are all in English (except for direct quotes from interviewees, these quotes however are translated to English when reporting research findings and discussion).

Raw data	Memo	Code and definition
bdkh của Vietnam chẳng hạn. Thì chắc là lúc đấy cái việc hiểu rõ bản chất của vấn đề nó sẽ dễ hơn. Đây là việc bọn mình cũng đang làm.	lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as <i>consequences and outcomes</i> . The impacts of climate change on geophysical systems, including floods, droughts, and sea level rise, are a subset of impacts called physical impacts .	Working on impacts assessment. What are the impacts on the ground, how do they look like.
A. Các giải pháp, hoạt động cụ thể trong thích ứng thì chị thấy có những hoạt động gì chị?		
Về thích ứng thực ra VN mình làm được cũng tương đối nhiều, và VN không có nghĩa là CP Vietnam nhé, người dân cũng có những giải pháp cụ thể thế nhưng mà nó chưa thành những đường hướng sắc nét lắm mà nó cũng chưa có gì mà thực sự rõ ràng. Có nhiều lý do, 1 là vì gần đây mình mới huy động được cái phân tài chính một chút thôi cho bdkh thì cái việc mà hiện nay VN mình làm nhiều về thích ứng liên quan đến nông nghiệp có lẽ là 1 trong những ngành đi đầu. Một chút nữa là có thể đang làm về giao thông. Đây là về các ngành. Thế còn dới địa phương thì người dân cũng có những điều chỉnh về sinh kế. Tuy nhiên nó ko mang tính hiệu quả, nó không có một cái quy hoạch, kế hoạch cụ thể. Cái mà hiện nay yếu nhất là để có thể thích ứng tốt thì phải có một cái quy hoạch tốt về thích ứng. Thì cái đấy chưa làm được .	This comment is interesting. Vietnam does not mean the government of Vietnam. There are activities done by non-state actors.	Different stakeholders: government, citizen, donor, farmer, media. "VN không có nghĩa là CP Vietnam nhé, người dân cũng có những giải pháp cụ thể thế nhưng mà nó chưa thành những đường hướng sắc nét lắm mà nó cũng chưa có gì mà thực sự rõ ràng"
A. Quy hoạch thích ứng là gì chị.	Residents/farmers working on livelihood adjustment but unplanned	Who adapts? "nông nghiệp có lẽ là 1 trong những ngành đi đầu" Autonomous, incremental adaptation by locals: adjusting livelihoods
Planned adaptation. Nó không phải chỉ là chương trình hđ đầu. VN mình thì ko thiếu các kế hoạch hay là văn bản chính sách nhưng cái chính rất cụ thể là mình phải quy hoạch được từ đánh giá rủi ro, đánh giá tác động thì mới ra được những vấn đề ưu tiên và mình phân vùng mỗi vùng làm cái gì và mình có chiến lược riêng với nó. Hiện nay bọn mình đang có cái chương trình sắp tới làm.		Holistic and regional approach: based on risk, impact assessment to develop planned adaptation
A. Cái thích ứng của vùng ven biển và vùng inland có khác nhau		

- Tung Phan**
Vietnam does not mean the government of Vietnam
- Tung Phan**
The agriculture sector takes the lead in adaptation
- Tung Phan**
Locals are also taking actions to adapt to climate change
- Tung Phan**
No adaptation plan
- Tung Phan**
Vietnam does not lack of plans or policy documents

Figure 5.5: The manual coding process (source: Author)

Findings from interview data in Hai Phong city and Soc Trang province helped explore the local government official's interpretation of CCA, policy action and barriers to policy implementation. Interviewee's perceptions on climate change related issues such as impacts, sea level rise, vulnerability, mainstreaming and adaptation policy were assessed and compared between DONRE and other provincial departments (e.g. agriculture) within an individual case study; between Hai Phong's DONRE and Soc Trang's DONRE; and between the present research and similar studies in Vietnam and other countries.

5.8. Ethical Considerations

Given the human dimensions of the study, ethics was considered throughout this research (Robson, 2011; Creswell, 2014). The research methods involved interviews of government officials, researchers, and domestic and international consultants, therefore the researcher applied for human ethics approval from the Human Ethics Committee (HEC) of the University of Canterbury before conducting empirical data collection. The HEC approved the research project on 3 July 2017 (Ref: HEC 2017/28/LR-PS, see Appendix C).

Participants in this research were provided information about the project and researcher (e.g. an information sheet for research participants) and a consent form was presented prior or during each

interview. Participation in the study was completely voluntary and data and personal details are treated with confidentiality and anonymity. Only the researcher and his principle supervisor had access to respondents' real names, their affiliations and job descriptions. Anonymised names have been used instead of interviewees' real names when quoting statements.

5.9. Researcher's Positionality

There is potential bias of the researcher as an 'insider', given that the experience and knowledge of the researcher as a government official which might influence the research design, case selection, sampling, the analysis of the data and subsequent findings. This situation is referred to as 'doing backyard research' (Glesne, 2006). The research depended on the data collected at MONRE where the candidate works and its subordinate departments. This situation created both benefits and problems, the former were convenient access to respondents and documents, and the latter included ethical and political dilemmas.

The majority of the accessed state informants were those working in the NRE sector (MONRE, DONRE, DIONRE and communal NRE bureaucrats, see Appendix B). The NRE sector is responsible for climate change, water, and coastal management (other three areas under investigation are socio-economic development, forestry, and disaster management). The respondents were middle-level officials in their organisations, the researcher was unable to interview high-ranking officials such as leaders of the CPV, NA, GoV, MONRE, Hai Phong MPC, and Soc Trang PPC. There was also limited access to non-NRE officials such as those working in the agriculture and development planning sectors especially in Hai Phong city. However, the range of informants did allow good access to those who are responsible for implementing and, in some cases, formulating relevant policy.

As a government official working for MONRE, the researcher can be seen as an 'insider' of the CCA policy implementation process in Vietnam. However, the researcher's particular role at the Department of Planning and Finance as an official charged with Official Development Assistance (ODA) projects management and ministerial report preparation does not directly relate to the CCA governance process of MONRE. It is noted that CCA governance is assigned to the Department of Climate Change (DCC) in MONRE. With respect to interviews conducted at a number of organisations beyond MONRE administration (line ministries, agencies at local level, universities and NGOs), the researcher believes that he had no influence on these organisations and their staff.

However, a critical reflexivity approach was applied to remain open-minded and minimise potential researcher's bias. The approach involves an intentional engagement with diverse perspectives, and constructions of reality, and therefore requires a continuous shifting among different knowledge domains, including questioning of what the investigator knows and how they gained the knowledge (Davidson, 2012). Reflexivity relates to the researcher's own assumptions, values and beliefs about climate change, how CCA policy is formulated and implemented in Vietnam, and adaptation practices

in coastal Vietnam. Analytic memos were used to identify assumptions, values, and beliefs, and to document ideas and thoughts that emerged throughout the research process (see the memo column in figure 5.5; and Appendix G - Interview guide, with analytical memo box included).

The research design also helped mitigate bias with two methods of data collection, resulting in two different data sets which buttressed each other. The researcher interviewed officials from a variety of government levels as well as from different organisations working outside of government. In relation to the risk that the government officials that were interviewed might report what they thought the researcher wanted to hear, the eight non-governmental informants were used to triangulate what government officials stated.

The role of a government official and a member of the Communist Party of Vietnam (CPV) brought the researcher more benefits than risks of being biased. If this research project had been conducted by a non-Vietnamese or even by a Vietnamese researcher seen as an outsider to the GoV, they would have struggled to gain access to government documents and informants who are critical sources of information for a public policy implementation study. In the present research and within the Vietnamese context, the researcher's positionality was not seen as a limitation but an opportunity to be exploited.

5.10. Chapter Summary

This chapter presented the research philosophy, research design, data collection and analysis techniques. The role of the researcher in this study was also highlighted, showing the transparency and ethics of the work. Reflexivity was employed to minimise potential bias and to establish the validity and trustworthiness of findings.

This research is mostly based on qualitative research (understanding of processes, perceptions, attitudes) rather than quantitative research (identifying set of variables and determining, testing their relationships). Two main methods were employed to collect, triangulate, and validate data. The analysis of documents such as laws, strategies, and plans was used to understand adaptation policy content and gain insights into the CCA policy process, including which actors were (and were not) involved in CCA policy-making. Documentary data were buttressed by 54 confidential, semi-structured interviews with policy actors and stakeholders, including officials from relevant agencies at national, provincial, district, and commune levels, and representatives from stakeholders which are active in CCA, such as NGOs and international donors (figure 5.6).

The 'story' of CCA policy implementation in coastal Vietnam is created by: (1) publicly available documents and internal reports; (2) bureaucrats; (3) non-state actors; and (4) interpretations of the researcher. Non-state informants provided outside-government views and were used to mitigate bias in the evaluation of what the authorities have been doing on CCA. Both state and non-state informants

offered ‘reality’, i.e. what is happening on the ground, not ‘papers’. Documents specifically focusing on climate change/CCA provided insights on vertical implementation while sectoral documents helped understand horizontal implementation.

Policy research can be based on two types of theories: prescriptive (normative) and descriptive. The former models are deductive and seek to demonstrate how policy-making and implementation should occur relative to prior standards and introduce an ideal situation. The latter models document the way in which policy process actually occurs with descriptive theories helping to explain what happened during the policy process, and understand the effects that choice, power, perception, and values have on policy-making and implementation (Mitchell, 1989; Hall & Jenkins, 1995). Hill and Hupe (2002) state that the descriptive approach is the approach implementation researchers should attempt. This study has been designed deductively, but the use of a qualitative method allows the flexibility to think narratively and work inductively, while also ensuring research reliability and validity. Therefore, the research can be seen as the integration between deductive and inductive investigations.

As highlighted in section 5.2 (research philosophy), social reality is subjective, different people associate different meanings towards a similar social phenomenon (Cresswell, 2014). Furthermore, chapter three noted that CCA is a ‘slippery’ concept, it means different things to different people depending on their positionality (Wolf, Alice & Bell, 2013; Henstra, 2017); CCA can mean development or DRR or both, depending on the perspectives of different actors (Mercer, 2010). In the present research, the actual data (e.g. what the interviewees said) and the researcher’s own interpretations created the ‘story’ of CCA implementation in coastal Vietnam as well as recommendations for effective CCA governance, which could be found differently by other researchers or thesis readers with their own perceptions and interpretations.

The following chapters (six, seven, and eight) report the findings of the present research based on the employed methodological approach and techniques for data collection and analysis. Chapters six and seven address the first research objective (to investigate how CCA policy is transferred and transformed from national to local level), chapter eight targets the second objective (to investigate how CCA is mainstreamed to sectoral policies). The three chapters answer the main research question - how is CCA policy implemented in coastal Vietnam?

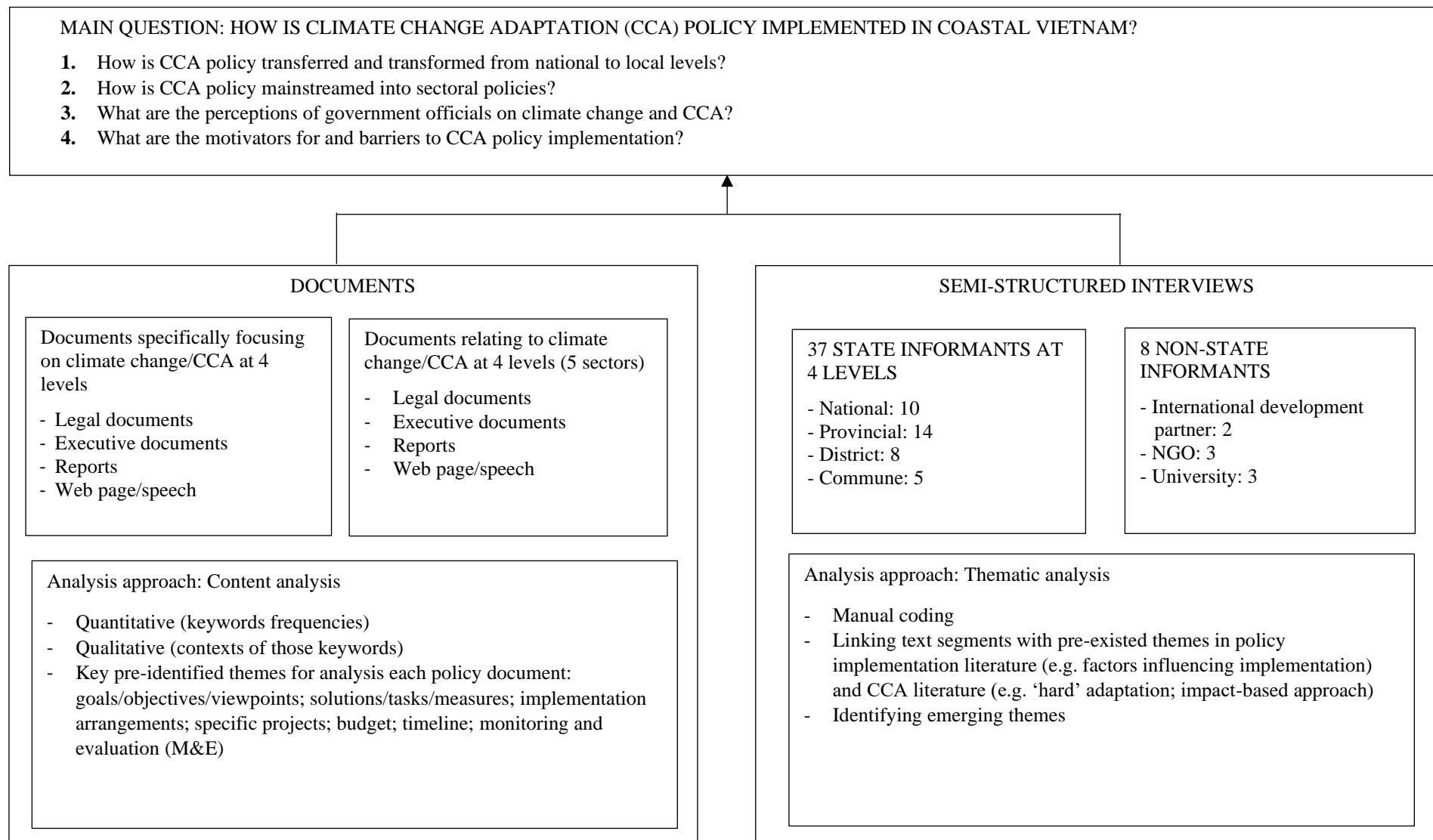


Figure 5.6: Summary of data collection and analysis (source: Author)

CHAPTER 6: VERTICAL CLIMATE CHANGE ADAPTATION POLICY IMPLEMENTATION - NATIONAL LEVEL

6.1. Introduction

This chapter examines how climate change adaption (CCA) policy is transferred from the international level to the national level in Vietnam, and the implementation processes within the central level. This is the implementation within the umbrella of the United Nations Framework Convention on Climate Change (UNFCCC) and its subsequent treaties such as the Paris Agreement (PA) (figure 6.1). Throughout this vertical transmission process, the actors and stakeholders involved and their interactions will be reported. The findings have been drawn from analyses of policy documents specifically focusing on climate change (e.g. the PA 2015; the National Target Program to Respond to Climate Change (NTP-RCC) 2008; the National Climate Change Strategy (NCCS) 2011); and interviews with bureaucrats whose work directly relates to climate change.

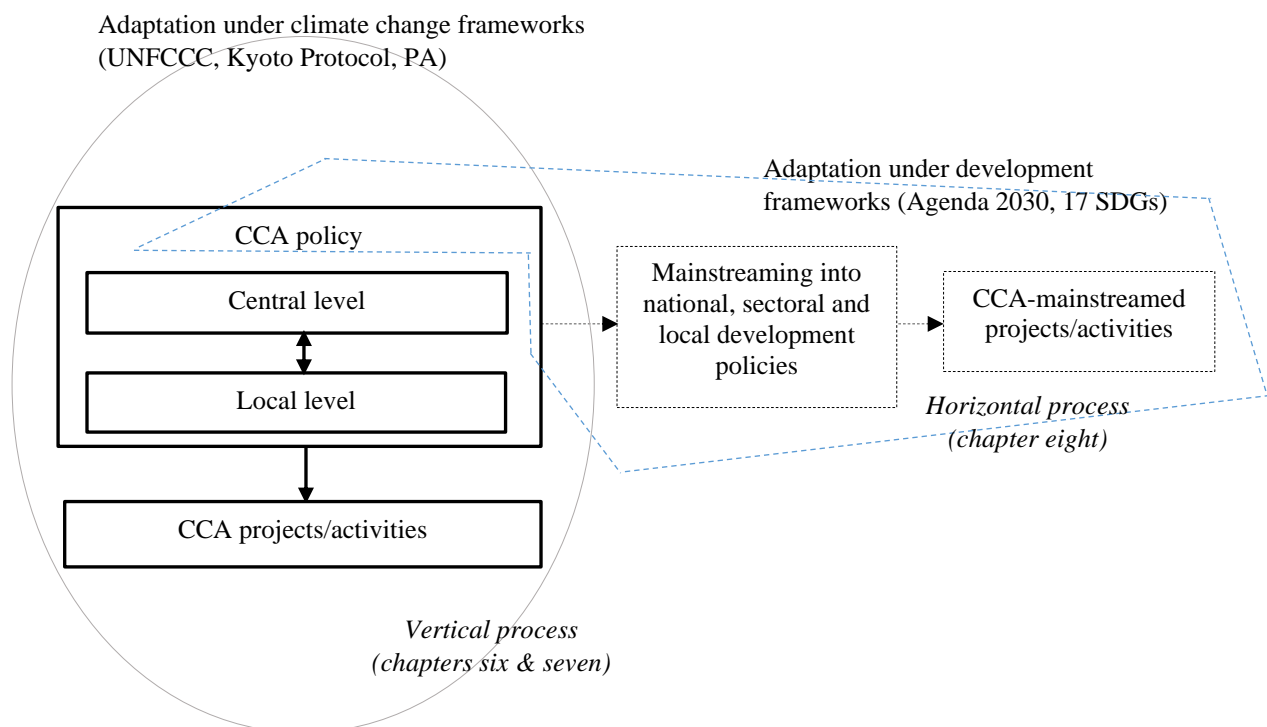


Figure 6.1: The vertical and horizontal flows of CCA policy in Vietnam (source: Author)

The chapter begins by exploring the international climate change policy landscape and institutions working on climate change issues at the global scale. The subsequent section examines the CCA policy landscape, institutional arrangements, policy networks at Vietnam's national level. As argued in chapter four, both policy-level actions and project-level activities are essential in CCA policy

implementation process. The chapter will reveal how these ‘actions’ and ‘activities’ manifest in CCA policy sector Vietnam. This national level CCA directives and implementation lay the foundation for CCA policy implementation in Hai Phong city and Soc Trang province (local level) which will be discussed in chapter seven.

6.2. International Level

6.2.1. Climate change adaptation policy frameworks

There are three main international policy documents relating to CCA, the UNFCCC, adopted in 1992, the Kyoto Protocol in 1997, and the PA in 2015 (figure 6.2). This section presents global climate change regulatory and institutional frameworks, and the evolution of CCA, which has been reflected in the three documents and the Conferences of the Parties (COP) over time. In the 1980s climate change became recognised as a global policy problem with the adoption of the UNFCCC in 1992 and the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988. Both have contributed to the formulation and implementation of CCA policies at international and national levels.

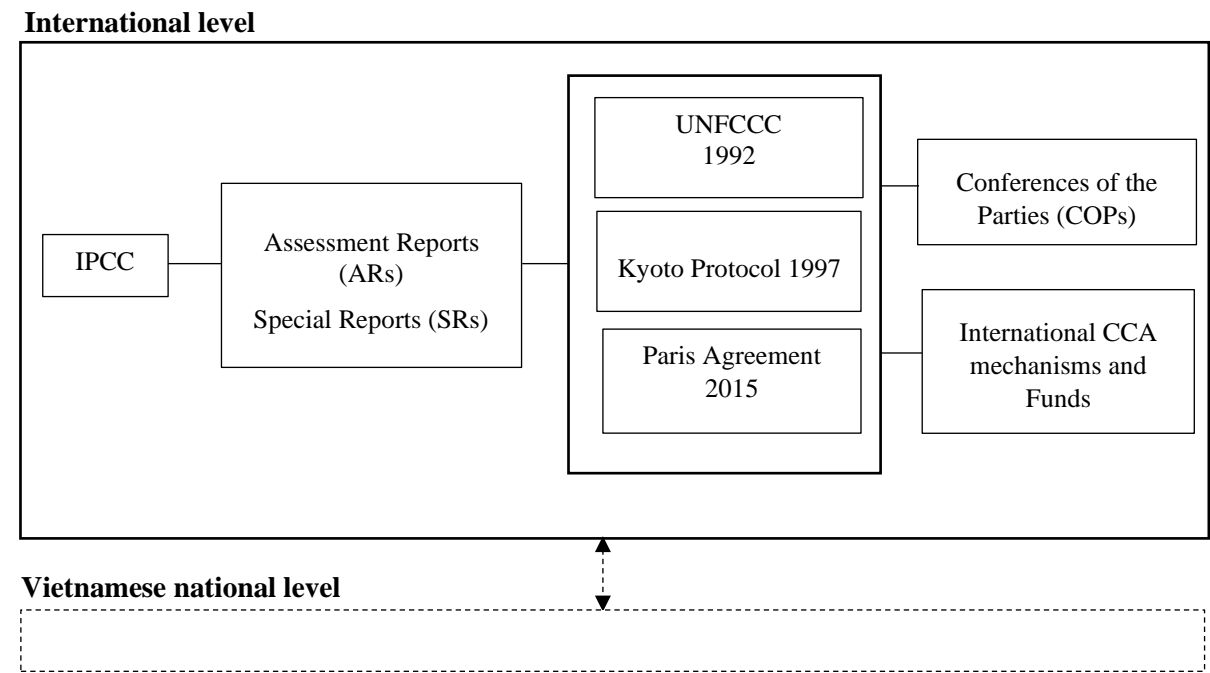


Figure 6.2: International climate change policies and institutional arrangements
(source: Author)

The United Nations Framework Convention on Climate Change (UNFCCCC)

The United Nations (UN) Conference on Environment and Development (the Earth Summit) held in Brazil in June 1992 negotiated the UNFCCCC:

The ultimate objective of this Convention is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (UNFCCC, 1992, p.9).

The UN's Climate Change Convention is mitigation-focussed and adaptation is less considered than mitigation as a policy response (Burton et al., 2002). The lack of adaptation in the convention is a reflection of the political intentions of the developed country parties and the high level of uncertainty of the rate and magnitude of climate change impacts that existed at the time (Burton, 1994; Schipper, 2006). In relation to the implications of the lack of adaptation in the UNFCCC to CCA policy, Schipper (2006, p.90) noted that "the lack of specific definition of adaptation, even more confused by its association with other aspects of the UNFCCC, posed a significant constraint to furthering policy on adaptation". Nevertheless, Article 4 of the Convention states that all parties shall formulate, implement, publish and update national programs containing measures to facilitate CCA; developed country parties shall assist developing country parties in adaptation costs (UNFCCC, 1992).

Climate change policy researchers claim that the UNFCCC and IPCC's work promote an impacts-based approach to adaptation rather than vulnerability-based adaptation. The former targets external climate related stimuli such as extreme events, the latter focuses on drivers of climate change vulnerability, e.g. poverty and livelihood (Burton et al., 2002; Schipper, 2006; Ayers, 2010). These two approaches bring about different adaptation measures (see chapter three).

The Kyoto Protocol

The Kyoto Protocol was adopted in 1997 at the third COP (COP3) to the UNFCCC. The main objective of the Kyoto Protocol is to create a legally binding international agreement, whereby all the participating parties commit themselves to addressing the issues of global warming and greenhouse gas (GHG) emissions. This policy framework is mitigation-focused although Articles 10 and 12 refer to adaptation. Additionally, an *Adaptation Fund* was established under the Kyoto Protocol to finance CCA projects in the developing country parties.

The Paris Agreement (PA)

The PA is a milestone in making adaptation of equal importance to mitigation in the international climate change policy frameworks (Lesnikowski et al., 2017). The PA was adopted at COP21 in Paris in 2015, and will replace the Kyoto Protocol from 2021. It came into force in November 2016. Country parties, including Vietnam, submitted Intended Nationally Determined Contributions to the UNFCCC Secretariat in late 2015 (referred to as Nationally Determined Contributions (NDCs) since late 2016). Vietnam, as well as other Parties, is obliged to fulfill its commitments stated in the NDCs from 2021.

The PA's main objectives are to reinforce the global climate change response by maintaining a global temperature increase this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature rise even further to 1.5°C (mitigation); and to strengthen the ability of countries to deal with climate change impacts (adaptation). Since the adoption of the PA, adaptation has gained significant attention in the international regulatory frameworks on climate change. Paragraph 1, Article 7 of the PA states:

Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal (UN, 2015).

The PA requires that all parties shall submit adaptation plans (e.g. national adaptation plans and adaptation progress) as part of their national communications to the UNFCCC Secretariat.

6.2.2. International institutional frameworks

The formulation and implementation of the UNFCCC, Kyoto Protocol and PA have been governed by international institutions and mechanisms, discussed below.

The Intergovernmental Panel on Climate Change (IPCC)

In 1988, the United Nations Environment Program (UNEP) and the World Meteorological Organisation (WMO) jointly established the IPCC, which is the leading international body for climate change assessment of physical science, mitigation and impacts, adaptation and vulnerability. The IPCC is an organisation of the UN. One of the main tasks of the IPCC is the preparation and publication of the Assessment Reports (ARs). With the first AR introduced in 1990 and the most recent one was the AR5 in 2014 (Skodvin, 2000; IPCC, 2014). An AR is integrated from contributions from three Working Groups (Working Group I: the physical science basis; Working Group II: impacts, adaptation, and vulnerability; and Working Group III: mitigation of climate change). The regular ARs together with other reports have provided scientific information on climate change which has been used by policy-makers to negotiate, formulate and implement climate change policies. The IPCC's first AR in 1990 significantly contributed to the creation of the UNFCCC.

The IPCC has not been directly involved in the climate change policy processes in Vietnam however, its reports and in-country conferences provided scientific information for the climate change and sea level rise scenarios in Vietnam, which were foundations for development of climate change impact assessments, national climate change policies, and ministry and provincial action plans. In addition, during the preparation of the special report (SR) on managing the risks of extreme events and disasters to advance CCA, the IPCC held workshops in Vietnam in 2010 and 2012. In January 2015, the IPCC President joined MONRE in Hanoi to announce the establishment of the Vietnam Panel on Climate

Change (VPCC) and the Vietnam Special Report on managing the risks of extreme events and disasters to advance CCA. In October 2016, the MONRE, UNDP and IPCC co-hosted a workshop on “IPCC achievements and Vietnam actions in climate change” (UNDP, 2016) in Hanoi.

Conference of the Parties (COP)

The COP is the supreme decision-making body of the convention. At annual COPs, parties review the convention’s objectives, implementation and progress, and decide on measures to facilitate implementation. This is the key mechanism which connects countries in efforts to address climate change.

There are key milestones in respect of the adaptation regime under the UNFCCC. For example, in 2001 (COP7), the national adaptation programs of action (NAPA) was initiated for least developed countries (LDCs). The NAPA of the LDCs would identify priority activities that respond to their urgent and immediate needs to adapt to climate change. In 2005, at COP11 the Nairobi Work Program (NWP) was found to support CCA policies and practices through the development and dissemination of relevant information and knowledge. One of the primary goals of the NWP is to enhance the understanding and assessment of impacts, vulnerability and adaptation of all parties, but especially of developing nations, and to increase the effectiveness of decision-making in this context. At the COP16 in 2010, Mexico adopted the Cancun Adaptation Framework. Its objective is to advance CCA actions, including through international cooperation and rational consideration of issues relating to CCA under the Convention (Liu, 2011). Since 2010, national adaptation plan (NAP) formulation and implementation in developing countries including Vietnam has been given priority under the UNFCCC.

Under the Cancun Adaptation Framework 2010, the UNFCCC parties established the Adaptation Committee (AC) to promote the implementation of CCA in developing country parties. Currently there is no evidence of activities of the AC in Vietnam, possibly because the AC’s focus is more on adaptation actions in the LDCs.

In respect to COP24 (held in Katowice, Poland in 2018), the key objective was to agree and adopt a package of decisions to ensure the full implementation of the PA, known as the PA Work Program (PAWP), or the Paris ‘Rulebook’. The Katowice Rulebook guides the implementation of the PA through basic procedures and mechanisms that parties have to follow. In respect to CCA, the rulebook has guidelines on how to communicate and report on adaptation efforts (Zihua, Voigt & Werksman, 2019).

Financial mechanisms

Both the UNFCCC and the PA stated that developed countries should provide funds to assist developing countries in implementing the Convention and the PA. This is realised through financial

mechanisms.

According to Article 11 of the UNFCCC, the operation of the financial mechanism is entrusted to one or more existing international entities. The Global Environment Facility (GEF) and the Green Climate Fund (GCF) are operating entities of the financial mechanism of the Convention. The GEF and GCF are accountable to the COP, which decides on its climate change policies, program priorities and eligibility criteria for funding. There are other funds established to facilitate the implementation of the UNFCCC such as: the Special Climate Change Fund (SCCF) and the LDCs Fund (LDCF), both of which are managed by the GEF; and the Kyoto Protocol Adaptation Fund (AF). At COP16 in 2010, parties established the Standing Committee on Finance to assist the COP in exercising its functions in relation to the financial mechanism of the Convention.

The financial mechanism to implement the PA is stated in its Article 9: “Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation” (UN, 2015, p.13). The financial mechanism of the UNFCCC, including its operating entities (e.g. the GEF and GCF), also serve as the financial mechanisms of the PA (UN, 2015). Both the GEF and GCF have funded a number of CCA-related projects in Vietnam.

6.2.3. Vietnam’s role in the international arena

Signing the treaties

Vietnam signed and ratified the UNFCCC in 1992 and 1994, and the Kyoto Protocol in 1998 and 2002 respectively. To implement the Kyoto Protocol, the Prime Minister of Vietnam issued Directive 35/CT-TTg dated 17 October 2005 and a national Plan (Decision 47/QĐ-TTg dated 6 April 2007). MONRE was assigned as the national focal point to the UNFCCC (MONRE, 2019). The appointment of the national focal point shows that the Vietnamese government initially viewed climate change as a meteorological and/or environmental issue.

Vietnam signed the PA in April 2016 and ratified the treaty in October 2016 by the governmental Resolution 93/NQ-CP. A national Plan to implement the PA was developed and issued under Decision 2053/QĐ-TTg by the Prime Minister dated 28 October 2016 with 68 specific tasks to be assigned to governmental ministries and 63 provinces and centrally-run cities (GoV, 2016b).

National communications to the UNFCCC

As of 2019, Vietnam has submitted five communications to the UNFCCC Secretariat: the Vietnam Initial National Communication in 2003; the Vietnam’s Second National Communication to the UNFCCC in 2010; the Initial Biennial Updated Report of Vietnam to the UNFCCC in 2014; the Intended Nationally Determined Contributions in 2015; and the third National Communication of Vietnam in 2019. The main content of these reports was on the progress of implementation of the

UNFCCC's objectives in Vietnam. All the reports were prepared by MONRE. The development and submission of the latest communication in 2018 reaffirmed the commitment of the GoV in responding to climate change and actively participating in the international community to implement the objectives of the UNFCCC as well as the PA (MONRE, 2019).

The Vietnam Working Group on climate change negotiation was established under Decision 80/QĐ-TTg dated 12 January 2012 by the Prime Minister with duties to assist the Prime Minister in directing and coordinating relevant ministries in international negotiations on climate change (especially COPs) on the basis of protecting the national legitimate rights and interests, mobilising international resources to support climate change response, and enhancing Vietnam's position in the international arena. The negotiation group is led by a Vice Minister of MONRE, and members are representatives from MONRE, Ministry of Foreign Affairs, Ministry of Planning and Investment (MPI), Ministry of Finance (MOF), Ministry of Agriculture and Rural Development (MARD), Ministry of Science and Technology, Ministry of Industry and Trade, and Ministry of Transport (GoV, 2012c).

Vietnam has been actively and responsibly implementing the international climate change policy frameworks and guidelines in line with its level of development and priorities. The international climate change policies and institutional arrangements have influenced CCA policy-making and implementation in Vietnam. The following section presents the national climate change policy frameworks and describes how they have been translated into 'actions' in Vietnam. In the present research, 'actions' mean policy-level actions (planning) and project-level activities (concrete measures).

6.3. National Level

The development of climate change and CCA policies in Vietnam can be divided into three periods: before 2008; 2008-2013; and after 2013. The year of 2008 is an important milestone since the first national climate change policy of Vietnam was introduced in this year. Figure 6.3 presents the key policy and legal documents adopted and state institutions established for climate change as well as CCA governance in Vietnam.

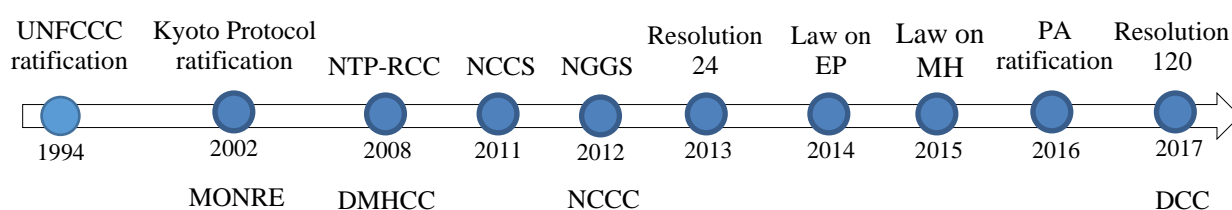


Figure 6.3: Timeline of national CCA policy documents (above the line) and establishment of CCA management agencies (below the line) (source: Author)

KEY: NTP-RCC: National Target Program to Respond to Climate Change; NCCS: National Climate Change Strategy; NGGS: National Green Grow Strategy; PA: Paris Agreement; EP: Environmental Protection; MH:

Meteorology and Hydrology. MONRE: Ministry of Natural Resources and Environment; DMHCC: Department of Meteorology, Hydrology and Climate Change; NCCC: National Climate Change Committee; DCC: Department of Climate Change.

6.3.1. Climate change adaptation policy frameworks

Responding to the international climate change policies and the impacts of climate change in various sectors and localities within the country, the GoV has developed and implemented a number of policies on climate change response as well as CCA. Before 2008 the Prime Minister ratified two governmental documents to implement the Kyoto Protocol (Directive 35/CT-TTg and Decision 47/QĐ-TTg). Since 2008, starting with the introduction of the NTP-RCC, the GoV, National Assembly of Vietnam (NA) and the Communist Party of Vietnam (CPV) introduced a number of climate change policies, which direct the course of CCA and mitigation in Vietnam. Between 2008 and 2015 climate change policy directions from the CPV, NA, and GoV were extensively institutionalised (Interviewee SN2). There were three important national policy documents introduced in the period including the NTP-RCC in 2008, the NCCS in 2011, and Resolution 24-NQ/TW by the CPV in 2013. The first two are Government's policies (executive documents), while the latter is from the CPV (political decision). There is not yet any law or by-law specialising on climate change response or CCA in Vietnam.

The National Target Program to Respond to Climate Change (NTP-RCC)

In 2007, the GoV assigned MONRE to prepare a NTP-RCC. The NTP-RCC was then developed by MONRE and approved by the Prime Minister (PM) under Decision 158/QĐ-TTg dated 2 December 2008. Although written in the format of a program, the NTP-RCC is viewed as a climate change policy by researchers (Phuong et al., 2018; Zimmer et al., 2015; Zink, 2013), and government officials (Interviewees SN3, SN9). In this regard, according to (Parsons, 1995, p.13), the word “policy” is also “not a precise or self-evident term”. There are two types of national target program in Vietnam, one has a policy framework imbedded, and the other does not (Interviewee NS8). The NTP-RCC is the first type.

The introduction of the NTP-RCC was influenced by international factors, the AR4 in 2007, and financial support from the Danish Government (Interviewee SN3). In addition to dealing with climate change effects, a motivation of NTP-RCC formulation was also to mobilise international financial and technical support (Interviewee SN3). Note that the GoV announced this policy document on 2 December 2008 immediately before the Vietnamese delegation attended the COP14 in Poland.

The main objectives of the NTP-RCC 2008 include: assessment of climate change extent and impacts in Vietnam; identification of climate change response measures; development of a science and technology program on climate change (this objective led to the introduction of the Science and Technology Program for NTP-RCC, one of the three national climate change programs); strengthening

the capacities of agencies working on climate change; awareness raising and human resources development; enhancement of international cooperation; mainstreaming climate change into development plans; and preparation of action plans of ministries and localities to respond to climate change.

The NTP-RCC in 2008 identified 26 tasks and projects for the 2009-2015 period with a total budget estimated at USD 90 million (VND 1,965 billion), of which 50% was expected to come from international support and 50% from domestic sources (30% from central budget, 10% from local budget and 10% from the private sector). In task no.8, the Prime Minister requested ministries and provinces to develop their action plans to respond to climate change by 2010. However, in fact most provinces and ministries completed and published their action plans after 2010 (e.g. Soc Trang government ratified its plan in 2011 and Hai Phong in 2014). The central government funded the preparation of these local plans. A lack of funds appears not to be the reason for the delay in CCA planning (further discussion in chapter seven).

In respect to the Prime Minister's direction to facilitate the formulation of the local and sectoral action plans, MONRE issued a guideline to government agencies and provinces (official Letter 3815/BTNMT-KTTVBĐKH dated 13 October 2009). The 19-page document highlighted the main contents that an action plan should have.

MONRE is the lead agency coordinating the implementation of the NTP-RCC nationwide. A National Steering Committee was established (chaired by the Prime Minister) to steer the implementation process (this Steering Committee was later replaced by the NCCC). State agencies at all levels were requested to take actions in accordance with their functions and duties. Societal actors were also encouraged to participate in implementing the NTP-RCC: encourage socio-political and socio-professional organisations; mass organisations; and NGOs and enterprises to participate in responding to climate change, especially in the areas of information, education and communication; support and mobilise community participation, disseminate experiences on successful models for responding to climate change; implement or participate in the implementation of projects within the NTP-RCC and action plans of ministries and localities (GoV, 2008).

In 2012, pursuant to Resolution 13/QH13 by the NA on the portfolio of the NTPs from 2011-2015, the Prime Minister approved the NTP-RCC for the period 2012-2015 under Decision 1183/QĐ-TTg dated 30 August 2012, with a total budget estimated at USD 53 million (VND 1,171 billion). In this decision, the Prime Minister requested ministries and provinces to update their climate change action plans (which were already developed with funding from the NTP-RCC in 2008) and identify prioritised tasks/projects for implementation.

The NTP-RCC is presently in its third phase of implementation (2016-2020), under Decision 1670/QĐ-TTg in October 2017 by the Prime Minister. The name of the program changed to Target

Program to Respond to Climate Change and Green Growth (TP-RCC-GG). The program's general objectives are to: mobilise national capacity to simultaneously implement adaptation and mitigation measures; restructure economic sectors towards green development; implement the NCCS 2011, the National Green Growth Strategy 2012, and the NDCs. Specific objectives to 2020 are to continue implementing 30 projects stipulated in official Letter 1443/TTg-QHQT dated 19 September 2012 by the Prime Minister; 42 coastal mangrove forestation projects stipulated in Official Letter 78/TTg-QHQT dated 16 January 2015 by the Prime Minister; plant and recover 10,000 ha of mangroves for coastal adaptation; mitigate two million tons of CO₂ per year; and create sustainable livelihood for local residents. Some specific climate change measures are to develop a climate change monitoring system, a salinity monitoring and forecast system; construct and upgrade six to ten water reservoirs with a capacity of 100 million cubic meters to regulate floods and prevent drought; six to eight salinity control systems; 200 km sea and river dykes; and develop a national climate change database system. Most of the measures are highly infrastructure-focused or 'hard' adaptation. The total budget of this program was estimated at USD 720 million (VND 15,866 billion), much higher than the previous phases.

There have been three versions of the NTP-RCC since 2008, approved by three decisions of the Prime Minister. The NTP-RCC is only one policy document relating to CCA in Vietnam, therefore the CCA policy landscape at national level is comprised of a series of interdependent decisions. Using (national) target programs (consisting of coherent objectives, comprehensive solutions and interrelated projects) is an approach that the government has taken to realise public policy objectives and solutions. Most key social-economic sectors have their own target programs (e.g. healthcare, rural development, poverty reduction, culture and energy use). During 2011-2015, there were 16 national target programs in Vietnam being developed and implemented (NA, 2011a). This reflects the programmatic approach to public policy implementation in Vietnam (Shanks et al., 2004; Hoa, 2016).

The National Climate Change Strategy (NCCS)

The NCCS was approved by the Prime Minister in Decision 2139/QĐ-TTg dated 5 December 2011. It outlines the objectives for 2011-2015 and 2016-2050, and identifies projects to be implemented in the period of 2011-2015 to address climate change issues at the national scale (GoV, 2011a). The NCCS's key specific objectives in relation to adaptation are:

Ensure food security, energy security, water security, poverty alleviation, gender equality, social welfare, public health; enhance living standards, conserve natural resources in the context of climate change;

Raise awareness, responsibility and coping capacity of stakeholders; strengthen scientific and technological potentials and human resources; strengthen institutional arrangements; mobilise and effectively utilise financial assistance in order to enhance the economic competitiveness and

the status of Vietnam in the international arena; take advantage of opportunities created from climate change for socio-economic development; promote climate-friendly consuming behaviours;

Actively join the international community in addressing climate change and increase international cooperation activities to effectively respond to climate change (GoV, 2011a, pp.5-6; author's translation).

Based on these objectives, there are ten strategic solutions identified: proactively coping with disasters and monitoring climate; ensuring food and water resources security; actively responding to sea level rise in the vulnerable regions; protecting and developing forests, increasing absorption of the GHGs and preserving biodiversity; reducing GHGs emissions to protect the Earth's climate; strengthening the key role of the state in responding to climate change; developing community-based climate change response; advancing science and technology for climate change response; enhancing international cooperation and integration whilst raising the nation's status in addressing climate change issues in the international arena; and diversifying financial sources for and effectively investing in climate change response (GoV, 2011a).

There are three phases of the NCCS implementation: 2011-2012, 2013-2025, and 2026-2050. In each phase, the GoV identifies priority actions. Basing on the strategy's viewpoints, principles, visions, targets, tasks and phases of implementation, there are ten national programs and projects to be reviewed (those already in place) or designed (new ones) and implemented. The GoV assigned MONRE to be the lead agency coordinating the implementation of the NCCS, and other ministries and 63 provinces and centrally-run cities to develop and implement their own plans to realise the strategy's objectives and solutions.

Societal actors are encouraged to participate in implementing the NCCS. The last paragraph of the NCCS text states:

Socio-political, social-professional organisations, mass organisations, non-governmental organisations and enterprises shall actively participate in climate change response; support and mobilise community participation, disseminate experiences on successful models for responding to climate change; implement or participate in the implementation of projects identified in the strategies and plans of the ministries and localities (GoV, 2011a, p.18; author's translation).

The wording is relatively similar to the respective paragraph in the NTP-RCC 2008 mentioned above, partly because both policy documents were drafted by MONRE. This, to some extent, shows evidence of policy alignment.

One of the solutions of the NCCS is to strengthen the lead role of the state in responding to climate change (no. 6). This implies that the GoV recognises and focuses on the role of state actors in climate

change response as well as CCA in Vietnam (state-centric governance). Coping with disaster was listed first among the ten solutions, revealing this *climate change* policy emphasises *disaster* prevention and control.

The Resolution 24-NQ/TW of the Communist Party of Vietnam (CPV)

In June 2013, the CPV adopted a political decision on proactive response to climate change, improvement of natural resources management and environmental protection (Resolution 24-NQ/TW). Given the role of the CPV in the state policy process in Vietnam this resolution is an important direction for the party apparatus and government agencies at all levels to develop and implement climate change policies and response measures. Accordingly, the government developed and issued a national Action Plan to implement Resolution 24-NQ/TW. At the local level, the Party Committees in Soc Trang province and Hai Phong city also had their party's and government's plans developed. The CPV is a political organisation and not a formal part of the state's institutional system however, it has a critical role in the public policy process in Vietnam. The party's organisational structure is parallel to the government's structure from national to communal level. In respect to the role of the party in the policy process, the *Constitution of the Socialist Republic of Vietnam 2013*, Article 4 stipulates that the CPV leads the state and society. The CPV therefore has significant political power to become involved in state policies.

In Resolution 24, the CPV acknowledged some initial achievements in climate change response nationwide however, climate actions remained limited owing to both objective and subjective reasons. The party asserted that "... responding to climate change is still passive and perplexed; natural disasters are increasingly abnormal, causing greater losses in people's lives and properties" (CPV, 2013, p.1; author's translation) and:

The above limitations and weaknesses have objective reasons, but the subjective causes are dominant. The awareness and vision of the party committees, government authorities, enterprises and communities on this work [climate change response] are inadequate, inconsistent and inclined to the immediate economic benefits, not yet considered sustainable development. Some guidelines of the Party have not been thoroughly and timely understood and institutionalised. The legal system is inconsistent; some mechanisms and policies are not close to reality and lack feasibility. The quality of forecasting and planning is still limited, failing to meet development requirements; lacking inter-sectoral and inter-regional approaches; unclear targets and resources for implementation. Organisational apparatus, state management and assignment, decentralisation, coordination among ministries and localities are still inadequate; implementation arrangements have not been proactive and determined; effectiveness and efficiency of inspection, supervision, monitoring and handling of breaches are low. The socialisation policy has not yet mobilised the participation of unions, associations, enterprises, communities and general public [in climate change response] (CPV, 2013, p.1; author's

translation).

The resolution's overall climate change objectives are: by 2020 proactively adapting to climate change, preventing disaster and reducing GHG emissions; and by 2050 proactively respond to climate change. The wording is significant, by 2020 it is 'adapting' (*thích ứng*) however by 2050, 'adapting' is replaced by 'responding' (*ứng phó*), which implies both adapting and mitigating. Specific objectives towards 2020 include:

Improve capacity for forecasting, warning of disasters, monitoring of climate change by functional agencies. Develop a sense of proactive disaster prevention and adaptation to climate change in each individual of the society. Gradually reduce the loss and damage to population and assets caused by disasters.

Proactively prevent and control the impacts of tidal surges, floods and salinity intrusion due to sea level rise in the coastal areas, especially in the Mekong River Delta, Red River Delta and Coastal Central Region, focusing on Ho Chi Minh city, Can Tho city, Ca Mau province and other coastal cities/provinces (CPV, 2013, p.3; author's translation).

Resolution 24-NQ/TW defines that adaptation and mitigation must be carried out in parallel, in which adaptation to climate change and proactive disaster prevention are central. The party's direction is in line with the government's NCCS 2011 - adaptation is given priority in Vietnam (compared to mitigation) and adaptation is not separable from disaster risk reduction (DRR).

Before 2013, the CPV had recognised the need to address climate change in Vietnam. In its Directive 36/1998/CT-TW dated 25 June 1998 on strengthening environmental protection in the period of industrialisation and modernisation of the country, the party pointed out that global environmental issues, such as climate change, sea level rise, cross-border pollution, water quality degradation in the main rivers, deforestation, and the El Nino phenomenon had adversely impacted the environment. In 2004, the Party Central Committee issued Resolution 41-NQ/TW on environmental protection in the period of accelerating industrialisation and modernisation in the country, in which the party reaffirmed the need for climate change response by directing the task of actively contributing to addressing the impacts of global climate change. In 2011, in the Political Platform on national development from the transitional period to socialism, the CPV continued to recognise the global issue of climate change and required response measures to be taken nationwide. In the National Socio-Economic Development Strategy for 2011-2020, the CPV highlighted the threats of climate change and called for response actions. Throughout the CPV has primarily viewed climate change as an environmental issue (CPV, 1998, 2004, 2011).

There is a phenomenon that Vietnamese government ministries 'lobby' to include policy sectors under their administration (e.g. climate change under MONRE, agriculture under MARD) in a party

resolution or directive. Having such a resolution gives a ministry more political power in coordinating, developing and implementing its sectoral policies (including mobilising resources and M&E). A party resolution on a particular policy issue enhances the political policy's significance and facilitates its implementation (Interviewee NS8).

Usually, the CPV adopts strategic policies based on which the NA and GoV at the central level and their affiliations at local levels institutionalise state policies. However, the process of climate change policy-making by the CPV is bottom-up. There had been government policies (the NTP-RCC in 2008, NCCS in 2011) introduced, and diverse practices on the ground before the introduction of party Resolution 24-NQ/TW in 2013. This is partly because climate change is a new public issue in the state agenda. The purpose of this political decision is therefore to reinforce existing efforts by the state in dealing with climate change rather than to lead or direct the state to take actions.

Table 6.1 summarises the main objectives of the three national policy documents. The follow-up solutions, tasks, programs, and projects to address climate change related impacts have been identified based on these national climate change policy objectives. The national climate change policy framework mandates and coordinates climate change actions at sub-national levels. MONRE was the author of all three national climate change policy documents as well as the party's policy, which MONRE drafted, and submitted to the GoV and then CPV for consideration and approval.

Table 6.1: Three main national CCA policy documents

NTP-RCC 2008 (by the government)	NCCS 2011 (by the government)	Resolution 24/NQ-TW 2013 (by the party)
<i>Overall objective</i>		
Assess climate change impacts on sectors and regions in specific periods; develop feasible action plans to effectively respond to climate change in the short-term and long-term to ensure sustainable development of Vietnam; take opportunities to develop towards a low-carbon economy; and join the international community's efforts in mitigating the effects of climate change.	Promote the capacity of the whole nation, simultaneously implement solutions to adapt to the impacts of climate change and reduce GHGs, and ensure the safety of the population and assets aiming at sustainable development. Strengthen capacity to adapt to climate change of human and natural systems, develop a low-carbon economy in order to protect and improve quality of life, ensure security and sustainable development in the context of global climate change and act together with the international community to protect the Earth's climate system.	By 2020, basically, proactively adapt to climate change, prevent disaster and reduce GHGs emissions. By 2050, proactively respond to climate change (respond includes adapt and mitigate).
<i>Specific objective</i>		
Assess the level of climatic change in Vietnam due to global climate change, and the impacts of climate	Ensure food security, energy security, water security, poverty alleviation, gender equality, social welfare, public	Improve capacity for forecasting, warning of disasters, monitoring of climate change by functionally

NTP-RCC 2008 (by the government)	NCCS 2011 (by the government)	Resolution 24/NQ-TW 2013 (by the party)
change on sectors and localities.	health; enhance living standards, and conserve natural resources in the context of climate change.	specialised agencies. Develop a sense of proactive disaster prevention and adaptation to climate change in each individual of the society. Gradually reduce the loss and damage to population and assets caused by disasters.
Identify solutions to climate change		
Strengthen scientific and technological activities to establish scientific basis for solutions to climate change response	Consider a low-carbon economy and green growth as principles in achieving sustainable development; GHG emissions reduction and removal to become a mandatory target in socio-economic development.	Proactively prevent and control the impacts of tidal surges, floods and salinity intrusion due to sea level rise in the coastal areas, especially in the Mekong River Delta, Red River Delta and Coastal Central Vietnam, firstly focus on Ho Chi Minh City, Can Tho, Ca Mau and other coastal cities/provinces.
Consolidate and strengthen the organisational capacity, institutions and policies on climate change response.	Raise awareness, responsibility and coping capacity of stakeholders; strengthen scientific and technological potentials and human resources; strengthen institutional arrangements; mobilising and effectively utilise financial assistance in order to enhance the economic competitiveness and the status of Vietnam in the international arena; take advantage of opportunities created from climate change for socio-economic development; and promote climate-friendly consuming behaviours.	Reduce GHG emissions per unit of GDP by 8-10% comparing to the 2010's level.
Raise awareness, responsibility for participation of community, and human resource development.		
Strengthen international co-operation in order to make use of international support in responding to climate change.	Actively join the international community in addressing climate change; and increase international co-operation activities to effectively respond to climate change.	
Mainstream climate change into socio-economic, sectoral and local development strategies and plans.		
Develop and implement action plans of ministries, sectors and localities to respond to climate change; implement projects, focusing on piloting ones.		

Source: GoV (2008, 2011a), CPV (2013)

Based on the three national policy documents and the PA in 2015, the GoV has taken policy-level actions which produced some national-level plans. These plans are executive orders that, together with the three policies, create the CCA policy environment and direct the CCA activities of ministries and localities in Vietnam. The section below details policy-level actions in relation to CCA at the national level.

6.3.2. Policy-level actions

The policy-level actions are actions taken by central government agencies. Policy actions might also include legislation formulation and adoption however, for the climate change sector, there is no legal document specific to CCA in Vietnam which has been adopted during 2008-2018. The policy-level actions in the climate change sector are therefore less dynamic than other sectors (e.g. environment, land use). CCA policy-level action outputs are mainly plans to implement the objectives and tasks stated in the national policy documents. ‘Everything’ below the national policy documents is the implementation of CCA policy.

The policy-level actions at the national level within the vertical implementation dimension of CCA policy are mainly taken by MONRE, the lead government agency for CCA public management. Although there are national plans ratified by the Prime Minister these plans had been drafted by MONRE and its functional departments. Table 6.2 summarises the policy-level actions and respective outputs. They are climate change policy-level actions only, the policy actions taken by non-climate sectors for example coastal management, forestry, water management, and disaster management are not included (see chapter eight - mainstreaming climate change into other sectors' policies).

Table 6.2: Some national and MONRE's plans to implement CCA policies

Planning documents
<p><i>National Action Plan on climate change for 2012-2020</i></p> <p>This Action Plan was adopted by the Prime Minister in Decision 1474/QĐ-TTg in 2012, developed to implement the NCCS 2011, its main objectives and tasks by 2020 include: strengthening capacity for climate monitoring, early warning of disasters; ensuring food security and water security; pro-actively respond to disasters; preventing flooding for large cities/provinces; consolidating river and sea dikes and reservoir safety; mitigating GHGs emissions, develop a low-carbon economy; enhance management capacity and improve management mechanisms and policies on climate change; mobilise the participation of the economic sectors, scientific, political-social-professional organisations, and NGOs in response to climate change; build effective CBA models; raise awareness, human resource development; develop science and technology as the basis for policy development, impact assessment, and identification of adaptation and mitigation measures; internationally cooperate and raise the position and role of Vietnam in the international arena on climate change; and mobilise resources and finance to respond to climate change.</p> <p>Since the introduction of the NCCS in 2011, the role and application of CBA has been officially recognised and regulated by the Government. In policy documents adopted before the NCCS, for example in the NTP-RCC 2008, the term 'CBA' had not been used. The plan identified 65 large scale projects with a timeline and the lead governmental agencies responsible for development of detailed project documents including cost estimation, submitting to the relevant authorities for approval and managing implementation.</p> <p><i>National Action Plan to implement the Party's Resolution 24/NQ-TW</i></p> <p>The Action Plan was issued under governmental Resolution 08/NQ-CP in 2014, it identifies the key tasks and solutions by the GOV in proactively responding to climate change, enhancing natural resources management and environmental protection to minimise the impacts of climate change; exploiting and using national resources reasonably, efficiently and sustainably; improving the quality of the living environment and ensuring ecological balance, towards the goal of sustainable development of the country that the Resolution 24-NQ/TW has stated.</p> <p>This National Action Plan will be implemented until 2020, it is a basis for governmental ministries and provinces to develop and implement their own plans. The plan lists 27 projects currently being implemented (under other related plans) and proposes 17 new projects to be prepared and carried out by relevant governmental ministries (since Resolution 24 is on climate change, natural resources and environment, only some of these 44 projects directly relate to climate change response).</p> <p>The GoV has action to elaborate a policy issued by the CPV. The formulation of this government's policy document is the implementation of the party's policy, illustrating the blurry separation between policy formulation and implementation.</p> <p><i>National Plan to Implement PA on climate change</i></p> <p>The Plan was adopted by the Prime Minister's Decision 2053/QĐ-TTg dated in October 2016. It identifies 68 tasks to be implemented by ministries and provinces in the two periods 2016-2020 and 2021-2030. The 68 tasks are grouped into five main themes: climate change mitigation (16 tasks); climate change adaptation (22 tasks); resource mobilisation (13); Measuring, Reporting and Verifying system (11); and development of policy and institution (6).</p> <p>MONRE is the lead governmental agency to administer the implementation of this National Plan. In August</p>

Planning documents

2017, MONRE issued Official Letter 4126/BTNMT-BĐKH guiding other ministries and 63 provinces to develop their own plans to implement Decision 2053/QĐ-TTg. According to MONRE's Guidance, the implementation of the PA is actually the implementation on the NDC that Vietnam submitted to the UNFCCC Secretariat in 2015.

Vietnam's NDC has two main components: mitigation and adaptation. The former sets a reduction target of 8% of GHG emissions by 2030 compared to the business as usual scenario with domestic resources and the contribution could be up to 25% with international support. The latter are actions that are currently being implemented (through the existing climate change policies, programs and projects). It also identifies adaptation gaps in terms of institutional arrangements, financing, human resource capacity and technology, and priority adaptation measures for 2021-2030.

The GoV estimated that the national budget would be able to meet approximately one-third of the financial needs to implement adaptation measures in 2015-2020, and it would seek international support and private sector investment for the remainder. In respect of climate change finance, in Resolution 24/NQ-TW, the CPV requested the government to establish legal frameworks and policies to support enterprise's involvement. However, to date there is no specific mechanism for enterprises to participate in CCA and mitigation. The GoV is still struggling with this issue in the climate change sector, which is rather different to other public sectors such as transportation where the public-private partnership (PPP) mechanism appears promising for private capital mobilisation (PPP is also recommended by the IPCC in its AR5 (2014) as a mechanism for drawing private investment in climate change response, however, the key barrier is the returns on investments (ROIs) are usually low and less attractive to investors).

An important task regarding CCA planning is the development of the National Adaptation Plan (NAP). The PA obliges parties to submit the NAP as well as adaptation progress to the UNFCCC Secretariat. The GoV has been implementing this specific international provision by assigning MONRE (through the Decision 2053/QĐ-TTg), in coordination with the MARD, Ministry of Planning and Investment, Ministry of Finance (MOF), Ministry of Construction and 63 provinces to develop the NAP and submit to the Prime Minister for approval and publication by 2019.

Sustainable and climate-resilient development of the Mekong Delta of Vietnam

Governmental Resolution 120/NQ-CP dated 17 November 2017. The Resolution resulted from the Conference on sustainable and climate-resilient development of the Mekong delta of Vietnam in Can Tho city, from 26-27 September 2017.

This regional policy document was prepared and approved after a national conference. The Resolution acknowledges that the conference's outcomes have led to its introduction. This is the bottom-up approach to developing a government policy document. In the Resolution, the GoV also cited the Party Resolution 24/NQ-TW as its foundation (top-down direction).

The governmental Resolution 120/NQ-CP is the most recent policy-level action in response to climate change. This resolution is however, focused on the Mekong River Delta in southern Vietnam. Following the 'routine', after the introduction of the resolution, government ministries have developed their own plans to implement the resolution. For example, MONRE approved its plan in September 2018 and MARD even issued its plan earlier, in March 2018.

Action Plans of MONRE to respond to climate change for the 2011-2015 and 2016-2020 periods

The two Action Plans were developed and adopted by MONRE (Decision 2418/QĐ-BTNMT in 2010 and Decision 672/QĐ-BTNMT in 2017), and are MONRE's plans which are not applicable for other ministries and localities however, since MONRE is the lead government agency in CCA governance, these Action Plans determine the MONRE's actions in coordinating CCA governance nationwide.

For 2011-2015 MONRE set these objectives: Establishing a scientific basis for climate change response in Vietnam: climate change scenarios, high precision elevation models, a database on climate change as a guide for ministries and localities to implement activities to respond to climate change. Building mechanisms and policies for management, administration and guidance for the implementation of the NTP-RCC on a national scale and improving capacity of state management on climate change of the natural resources and environment sector.

Objectives for 2016-2020: Consolidating and strengthening organisational, institutional, policy and legal documents on climate change, improving the capacity of state management on climate change; strengthening international cooperation on climate change; and raising awareness. The key tasks in relation to CCA policies and legislation are developing the national adaptation plan, the law on climate change, updating the national plan

Planning documents

to respond to climate change and the climate change and sea level rise scenario for Vietnam.

MONRE's objectives and respective actions on climate change management influence the CCA efforts nationwide. These ministerial policy-level actions therefore have national effects

Sources: GoV (2012, 2014d, 2016b, 2017a)

Some national climate change policy-level actions have been implemented under the framework of the SP-RCC. International donors provide ODA for Vietnam to address climate change issues through the SP-RCC. Vietnamese government ministries have to take policy-level actions as a condition of ODA. The SP-RCC is an interesting initiative in Vietnam as it facilitates policy-level actions implemented by ministries and funds project-level activities implemented by provinces and cities. There have been over 300 policy actions within the SP-RCC, most of which are sectoral policies and legislation development (non-climate policies are discussed in chapter eight). These policy actions were mainly funded from government's recurrent budgets with some development partners also providing financial and technical support (GoV, 2016c).

The current SP-RCC for the period of 2016-2020 was approved by the Prime Minister under Decision 2044/QĐ-TTg dated 27 October 2016. This SP-RCC would continue to support the implementation of the NCCS 2011, development of climate change and non-climate policies and legislation, and mobilisation of resources to implement the PA, alongside capacity building and carrying-out of prioritised projects related to climate change. MONRE is currently working on developing a law on climate change and this project has been allocated funds for implementation. A number of interviewees at both national and local level have emphasised the need for such legislation for the climate change sector (Interviewees SN3, SP2).

6.3.3. Project-level activities

Rahman and Tosun (2018, p.837) argue that "[t]he implementation and management of climate change adaptation policies take place by means of specific projects". The implementation of some public policy requires the delivery of specific projects, and the effectiveness of such projects determines the effectiveness of the policies' implementation (Hoa, 2016; also Interviewee NS8). Decision 6 of the Marrakech Accords (COP7) requested that the Global Environment Facility should fund pilot projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits (UN, 2002). Indeed, project-level activities connect policy outputs (e.g. strategies, plans) and actual policy outcomes and impacts on the ground. The effectiveness of CCA policies depends on how CCA projects are managed and delivered.

At the national level, CCA related projects are mainly organised within the three national programs including the NTP-RCC, the SP-RCC, and the Science and Technology Program for the NTP-RCC. This is the programmatic approach to implementing CCA policy. Additionally, there are ODA projects

on CCA, which are directly funded from international bilateral and multilateral donors. There are also annual regular tasks (projects and workshops) in relation to climate change public management by departments and research institutes within MONRE (figure 6.4).

The central government has issued documents guiding the preparation of climate change related projects (adaptation, mitigation, and cross-cutting). In October 2011, the Prime Minister ratified a set of criteria for assessment of project proposals under the SP-RCC program (GoV, 2011b). Following this decision, MONRE issued a guideline on how to prepare climate change projects within the framework of the SP-RCC by official Letter 3939/BTNMT-KTTVBĐKH dated 25 October 2011. MONRE's guideline was circulated to ministries and 63 provinces and centrally-run cities nationwide. The top-down instruction, guides government agencies at central and local levels and the contents of projects on climate change response that seek funding from the SP-RCC. Accordingly, provinces and cities (including Hai Phong city and Soc Trang province, the two case studies in this research) developed their project proposals to submit to MONRE for appraisal, and then to the Prime Minister for approval before implementation. To appraise these projects, MONRE established an inter-ministerial committee to assess the proposed projects against the criteria set by the Prime Minister.

Developing and carrying out specific projects to respond to climate change related impacts are crucial in the climate change policy implementation process in Vietnam, besides developing and implementing strategies and plans (policy-level actions). Under the SP-RCC, the Prime Minister has approved, in principle, 104 prioritised projects in which 42 are on forest development (under three Official Letters: 1443/TTg-QHQT in 2012; 262/TTg-KTN in 2013; 78/TTg-KTTH in 2015). These projects were proposed by ministries and provinces, appraised and selected by an Inter-Ministerial Committee based on a set of criteria set under Decision 1719/QĐ-TTg dated in 2011 by the Prime Minister. Most of these projects were planned for coastal provinces including Hai Phong city with five projects and Soc Trang province with four projects (the two case studies). However, owing to state budget restrictions, only 68 projects out of 104 planned projects have been allocated funds for implementation (42 forestation projects and 26 infrastructure projects) (Department of Meteorology, Hydrology and Climate Change (DMHCC), 2015; GoV, 2016d). Large investments geared towards infrastructure systems and forestation projects which were under the administration of the MARD and provincial/municipal Department of Agriculture and Rural Development (DARD). The MARD and its subordinates in local governments are therefore significant for climate change adaptation policy implementation.

A number of the above projects are for infrastructure development; sectors, line ministries, and provinces have been making use of climate change funds to realise development objectives. As Klein et al. (2005, p.584) noted, "there is concern that scarce funds for mitigation and adaptation will be diverted into more general development activities". The work of MONRE is focused more on policy-level actions (climate change policy development), policy-level activities (projects) are mostly

implemented by line ministries and provinces. The government agency which is responsible for administration of climate change, plays the role of a coordinator in policy implementation rather than being an active implementer. In this regard, a senior government official commented that MONRE manage but do not spend much climate change funds (Interviewee SN1)

The delivery of infrastructure and forestry projects largely depends on the availability of the central budget, and the ‘negotiation’ between provinces and three key national ministries (MONRE, MPI, and MOF). These projects (within the SP-RCC) have been selected and approved by the ministries and Prime Minister but all are directly implemented by provincial authorities (see chapter seven). This is in contrast to the projects within the NTP-RCC and the Science and Technology Program for NTP-RCC, which have mostly been implemented by organisations at the national level (ministerial departments, research institutes and universities). The SP-RCC funds investment projects, the other two national programs fund functional projects.

Within the NTP-RCC Program (2008-2011; 2012-2015; 2016-2020), national ministries have been allocated funds to implement CCA related projects (table 6.3 shows examples of some projects).

Table 6.3: Some functional projects implemented by ministries under the NTP-RCC

Ministries	Year
<i>Ministry of Transport</i>	
Developing an action plan to respond to climate change.	2010
Assessing impacts and building solutions to respond to climate change and sea level rise for Vietnam road traffic.	2010-2014
<i>Ministry of Education and Training</i>	
Integrating climate change response contents into education and training programs for the period 2011-2015.	2010-2015
<i>Ministry of Construction</i>	
Develop a climate change response program and action plan for the construction sector.	2010-2011
Review, adjust and supplement construction standards on technical infrastructure to cope with climate change.	2010-2011
Develop plans and solutions to ensure housing safety in the Mekong Delta and the Central Coast to adapt to climate change and sea level rise.	2014
<i>Ministry of Agriculture and Rural Development (MARD)</i>	
Develop policies to support crop rotation in the context of climate change in agro-ecological regions.	2010-2011
Develop integrated technical solutions for sustainable management and development of coastal protection mangrove forests to cope with climate change.	2012-2015
Update Action Plan to respond to climate change for the agriculture and rural development sector to 2020, vision towards 2050.	2015

Source: DMHCC (2014)

MONRE, as the lead agency governing climate change nationwide has also implemented a number of

projects funded from the NTP-RCC, the Science and Technology for NTP-RCC, ODA, and annual SEDP (the four main financial sources for CCA projects). In respect to the annual SEDP (regular tasks), the Minister of MONRE in December 2018 tasked the DCC and the Institute of Meteorology, Hydrology and Climate Change (IMHCC) (table 6.4) with some projects in the fiscal year of 2019. They are regular functional projects related to climate change response but funded through the annual SEDP (the annual regular expenditure source).

Table 6.4: State-funded functional projects implemented by the DCC and IHMM (the two bodies within MONRE) in the fiscal year of 2019

Project title	Timeline
<i>DCC (lead ministerial agency in climate change administration)</i>	
Study scientific and practical basis for the development of Vietnam climate change law.	2018-2020
Study the scientific basis and practice of building a database for assessing the needs of adaptation activities to adapt to climate change within the framework of the PA.	2018-2020
Develop guidelines for mainstreaming climate change considerations into national, regional and provincial strategies and plans.	2019-2020
Establish a measuring, reporting and verifying (MRV) system for CCA at national and provincial levels.	2018-2020
Develop and update action plan of MONRE to respond to climate change in the period 2021-2030, with a vision to 2050.	2018-2020
<i>IMHCC (a research institute within MONRE)</i>	
Update the climate change and sea level rise scenario for Vietnam.	2018-2020
Develop and update the national action plan to respond to climate change in the 2021-2030 period, with a vision to 2050.	2018-2020
Develop a database system of climate change in Vietnam.	2018-2020
Assess the level of risk and vulnerability to climate change, determine adaptation needs and the need to solve problems related to losses and damages.	2018-2020

Source: MONRE (2018a)

The projects implemented by MONRE and line ministries from the NTP-RCC and annual SEDP are projects that facilitate the state management of climate change rather than yielding concrete outcomes on the ground. The projects implemented by IMHCC within MONRE (table 6.4) reveal that the national climate change policy documents are actually drafted by component bodies of MONRE.

An important task for MONRE is to develop and publish climate change and sea level rise scenarios for Vietnam based on national and international research (e.g. IPCC reports). MONRE has delegated this work to the IMHCC. The three published climate change scenarios (in 2009, 2011, and 2016) should have guided ministries and provinces to develop and implement their climate change response action plans. However, the use of the published climate change scenarios remains limited (Interviewee SN10), and there is no official obligation on the incorporation of information in the scenarios in socio-economic and sectoral development plans. The development of climate change scenarios is legalised

in the *Law on meteorology and hydrology 2015* however their application after announcement remains voluntary.

Under the umbrella of the NTP-RCC, the National Science and Technology Program for NTP-RCC 2011-2015 was developed and implemented (Decision 2630/QĐ-BKHCH by the Ministry of Science and Technology in 2011; the establishment of this Science and Technology Program is to realise one of the objectives of the NTP-RCC 2008). The program aimed to support the implementation of the NTP-RCC through providing scientific and technological evidence for effective climate change response. Research projects under this program focused on climate change projections, adaptation, GHG emissions reduction, and mainstreaming climate change into socio-economic development plans. Within the framework of the program, from 2011 to 2014, 48 research projects with a total budget of USD 9.5 million (VND 218,650 million) were approved for implementation. The research projects focused on providing knowledge and understanding of the phenomenon and scientific nature of climate change, establishing a scientific basis for planning, designing monitoring and early warning systems of climate and climate change, and determining the scientific basis for mainstreaming climate change issues into the process of developing and implementing strategies and plans. The program has been contributing to assessing and forecasting the impacts of climate change and sea level rise, providing a basis for proposing mitigation and adaptation measures for Vietnam (Nhan, 2016). The 48 research projects within the Science and Technology Program were implemented by universities and research institutes such as the Center for Urban Research, Hanoi National University; the IMHCC, the MONRE; Plant Protection Research Institute, Vietnam Academy of Agriculture Sciences; and the Vietnam Environment and Sustainable Development Institute, Vietnam Academy of Social Sciences. In the period of 2016-2020, a new Science and Technology Program was also approved (Decision 172/QĐ-BKHCH in 2016).

The above are project-level activities within the three national climate change programs: the NTP-RCC, SP-RCC, and Science and Technology Program. Some climate change projects are also implemented by the MONRE agencies under the ministry's annual budget. There are also ODA projects at national level targeting CCA, such as the project on climate resilience and sustainable livelihood in the Mekong delta, funded by the WB, co-implemented by the MONRE, MARD and MPI; and the project on capacity building and support to the implementation of the NCCS funded by the UNDP, implemented by the DCC of the MONRE (MARD, 2016; DCC, 2018). The DCC project's overall objective is to support ministries and local governments to increase awareness, and institutional and scientific capacity to effectively implement the NCCS and contribute to the implementation of the Party Resolution 24-NQ/TW on proactive response to climate change, strengthening natural resources management and environmental protection. During 2014-2018, the project funded a number of policy-level actions, e.g. preparation of the Intended Nationally Determined Contributions, which Vietnam submitted to the UNFCCC Secretariat in late 2015; the *Law on meteorology and hydrology* which the National Assembly passed in 2015; the national Plan to

implement the PA which was ratified by the Prime Minister in 2016, and workshops on information dissemination, training and education. This project also funded the MARD to implement CCA activities in the agriculture sectors (DCC, 2018).

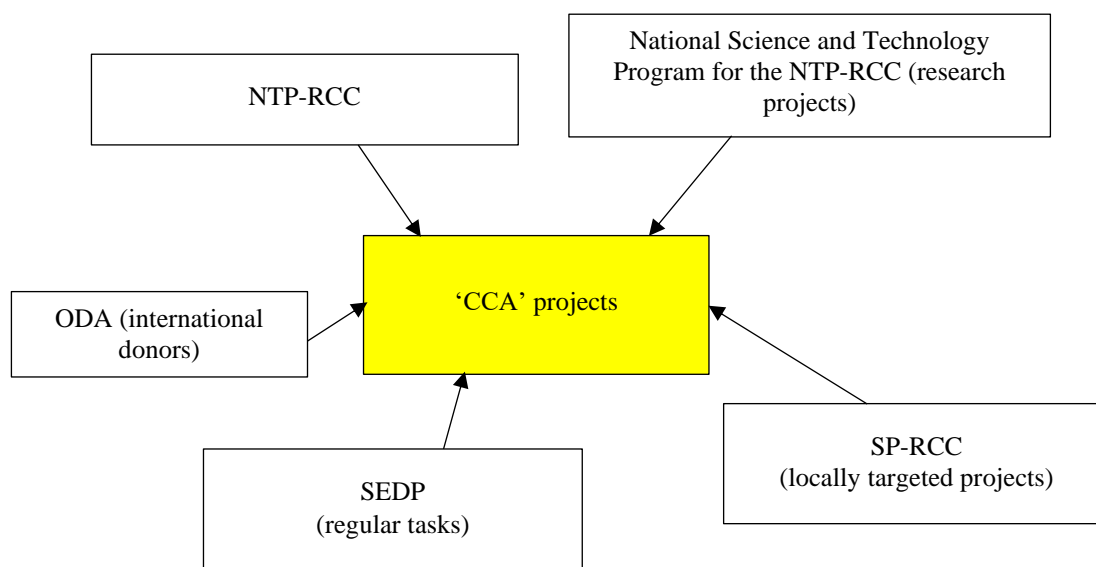


Figure 6.4: Five main sources of CCA projects (source: Author)

There are many procedures in relation to management and implementation of public investment projects including CCA projects, e.g. dyke building and coastal forest plantation. Under the current regulations on management of projects funded from the state budgets, in order to be eligible for being allocated funds for implementation, a project document must be planned and ratified by the relevant authorities (Article 56, *Law on public investment 2014*). The process from project idea to proposal development, ratification, and fund allocation is prolonged (personal communication with an official working in the Department of Planning and Finance, MONRE, August 2018). Furthermore, an approved project might not get funded for implementation if capital is not available. The agency that approved the project is not the agency that arranges funding for its implementation. This leads to the phenomenon that government agencies tend to prepare a shopping list of projects with expectations that some may get funded (Nguyen et al., 2017). Once a project gets funded, there can be problems during implementation, e.g. land clearance for sea dyke construction projects, or low survival rates of mangrove trees of a coastal forest recovery project (Thu, 2017a). The preparation process for an investment project is complicated and its implementation process is no less challenging.

Government agencies want to implement projects since the more projects they have, the more funds get allocated, the more work to do, and more ‘benefits’ to receive. The ‘benefits’ are an important factor influencing the work of government officials in Vietnam and relate to the issue of corruption in the country. In a study of climate change in Vietnam, Bruun (2012) stated that corruption has crept into climate change projects. Similarly, Trinh (2015) raised the question of how corruption affects

investment decisions concerning CCA in Vietnam. Zimmer et al. (2015) claimed that Vietnam is grouped in countries with low institutional quality illustrated by a low ranking for rule of law, high indices for corruption and a lack of transparency in the public sectors. As a sensitive issue in Vietnam, research participants of the present research did not explicitly mention the problem of corruption in CCA project implementation in Vietnam however, some of them, who worked for NGOs used the term ‘other benefits’ (*những lợi ích khác*) which implied corruption in the Vietnamese context (Interviewees NS3, NS4, NS7).

The extent of CCA policy implementation through policy-level actions and project-level activities is determined by relevant institutional arrangements. The following section discusses the policy actors and their interactions in vertical CCA policy implementation processes in Vietnam.

6.3.4. Institutional arrangements

Institutions are not only discrete organisations, e.g. ministries, but also more generally, sets of rules, procedures or practices that regulate behaviours of policy actors, constrain activities, and shape expectations (Keohane, 1998). This section discusses how key state institutions have been arranged to govern climate change as well as CCA at the national level in Vietnam. As noted in chapter two, the terms institution and organisation are used interchangeably, and institutional arrangements refer to both organisational structures and working mechanisms (Howlett & Ramesh, 2003; Shanks et al., 2004) that link state organisations in CCA policy implementation. In the present research, institutions refer to both ‘game players’ and ‘rules of the game’ (North, 1995).

Policy implementation actors

Identifying policy actors and their interactions is crucial in the policy process (Simmons et al., 1974; Pressman & Wildavsky, 1973; Hjern & Porter, 1981; Barrett & Fudge, 1981; Hogwood & Gunn, 1984; Goggin et al., 1990; Howlett & Ramesh, 2003; Hill & Hupe, 2014). Since this research focuses on policy implementation, policy actors are therefore mainly the administrative agencies rather than political and legislative bodies, which are the CPV and NA. The CPV and NA are not policy implementation actors but stakeholders that influence policy implementation and will be discussed in the policy networks section (6.3.5).

Pursuant to the provisions of Vietnam’s Constitution, *Law on organisation of central government 2015*, *Law on organisation of local government 2015*, *Law on promulgation of legal document 2015*, and by-law regulations, the main actors responsible for public policy implementation include: the GoV and its ministries and local people’s committees and their functional bodies at all levels (provincial, district and commune) (Hoa, 2016). Government agencies are the most important group of actors in the climate change policy process in Vietnam. They are involved in climate policy implementation on the basis of their government derived mandates. The key national policy actors in CCA

implementation are the MONRE, NCCC, MPI, and MOF. MONRE is the lead government agency coordinating CCA policy implementation nationwide (in 22 ministries and ministerial-level agencies, and 58 provinces and five centrally-run cities). The MONRE is responsible for ‘technical’ issues of CCA governance while MPI and MOF are charged with ‘financial’ issues. The NCCC is the highest level executive body within the GoV to direct CCA policy-making and implementation, chaired by the Prime Minister, however, it is an ad-hoc body rather than part of the formal government machinery (figure 6.5).

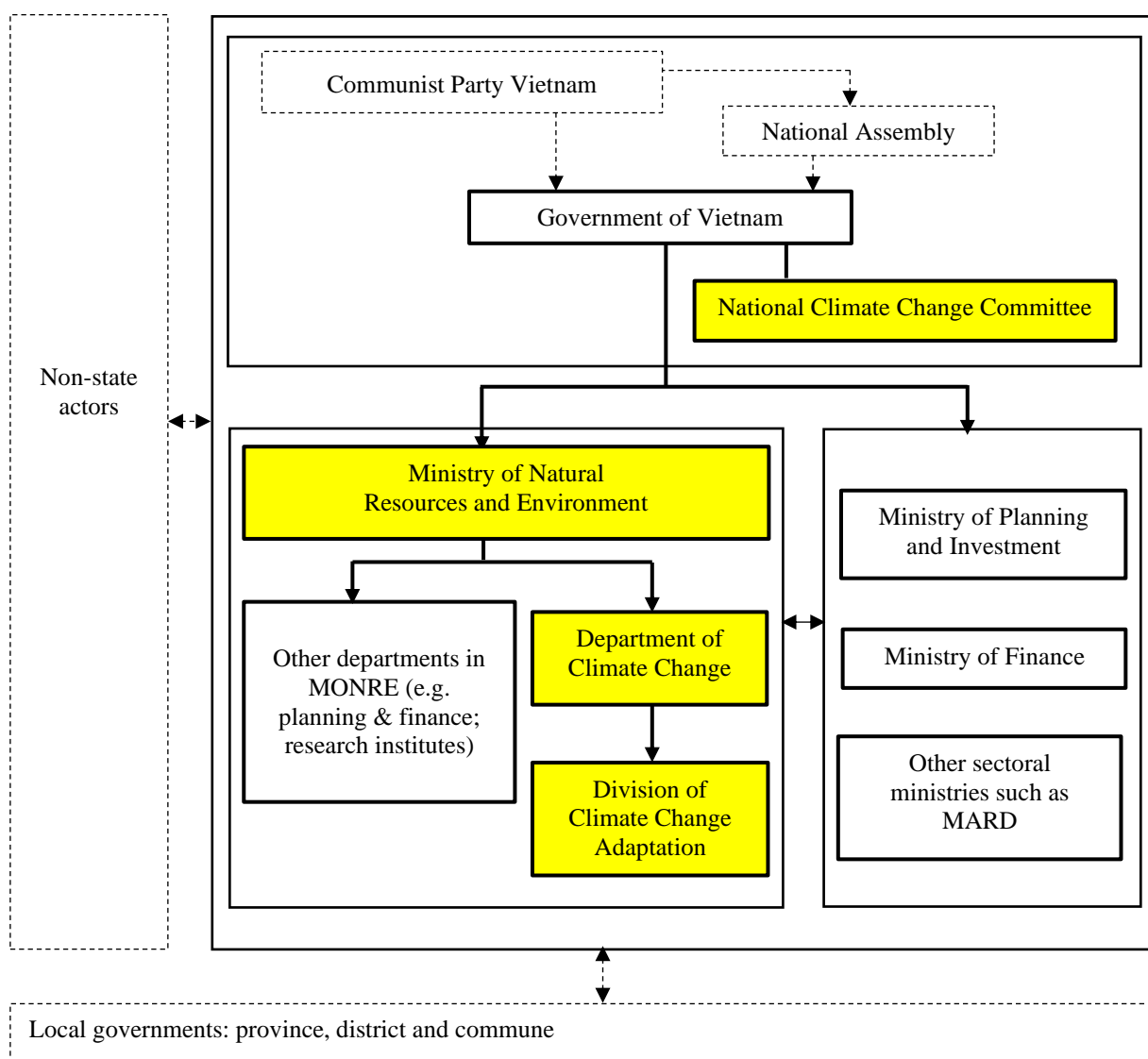


Figure 6.5: CCA administrative agencies at the national level (source: Author)

The Government of Vietnam (GoV)

As discussed in chapter four, the GoV is the highest executive body in the Vietnamese government machinery. Its main mandates are to govern the implementation of public policies and legislation introduced by the CPV and the NA. The GoV performs its work through its functional ministries (formal structure) and national steering committees (ad-hoc bodies, established depending on the

nature of each particular policy). The Prime Minister is the head of the GoV, chapter III of the *Law on organisation of central government 2015* stipulates the duties and powers of the Prime Minister, including directing ministries and provinces in formulating and implementing strategies, plans and projects within the power of the GoV and the Prime Minister (*Law on organisation of central government 2015*).

In the process of implementing public policies, public administrative (executive) agencies are the most important (see the structure of the Vietnamese government in chapter four). Paragraph 1, Article 96 of Vietnam's Constitution 2013 stipulates that the government's first task is to organise the implementation of the Constitution, laws, resolutions of the NA, ordinances, resolutions of the NA Standing Committee, and orders and decisions of the President of the State. Article 7 of the *Law on organisation of central government 2015* clearly stipulates the duties and powers of the Government such as deciding on strategy, plans, policies and other programs and projects under its authority (Thu, 2017b).

The GoV both formulates and implements public policies and legislation (Hoa, 2016). Since 2008, the GoV and the Prime Minister have made various decisions in relation to CCA governance, from organisational structure to policies on climate change response as well as CCA, e.g. the establishment of the DCC; the introduction of the NTP-RCC 2008, NCCS 2011, and the Resolution 120/NQ-CP in 2017.

The Ministry of Natural Resources and Environment (MONRE)

MONRE is mandated by the GoV to govern the climate change sector nationwide. MONRE was established in 2002 by the NA (Resolution 02/2002/QH11). There have been four governmental Decrees defining the Ministry's functions, duties, powers and organisational structure (Decree 91/2002/NĐ-CP in 2002; Decree 25/2008/NĐ-CP in 2008; Decree 21/2013/NĐ-CP in 2013; and Decree 36/2017/NĐ-CP in 2017 (the latter replacing the former)).

In Decree 91/2002/NĐ-CP, climate change governance did not appear in the functions and duties of MONRE. The term 'climate change' also did not appear in the text of Decree 91 even though the GoV ratified the UNFCCC in 1994 and the Kyoto Protocol in 2002. The Prime Minister made two decisions on implementing the Kyoto Protocol in 2005 and 2007 however, public management of climate change was not officially assigned to any national government agencies before 2008. In Decree 25/2008/NĐ-CP, climate change was not mentioned in the functions of the Ministry however, it was in its duties (no. 9: Meteorology, hydrology and climate change). Under this governmental Decree, the ministerial DMHCC was established to govern meteorology, hydrology and climate change issues (Decision 997/QĐ-BTNMT by Minister of MONRE dated 12/5/2008). Since 2008, the GoV has officially mandated climate change to its executive bodies in line with the introduction of the first national climate change policy of Vietnam in late 2008 (the NTP-RCC).

In Decree 21/2013/NĐ-CP, climate change governance was stated as a function of the Ministry. Climate change was listed as a separate sector administered by MONRE (duty no. 12: Climate change, whereas in Decree 25/2008/NĐ-CP, climate change was merged with meteorology and hydrology). However, the DMHCC remained in the organisational structure of the Ministry, responsible for the public management of climate change.

The most recent statement on MONRE's functions, duties, powers and organisational structure were stipulated in Decree 36/2017/NĐ-CP in 2017. Accordingly, MONRE administers nine sectors, including climate change which remains as a single duty (no. 14: Climate change), with additional descriptions compared to Decree 21. In 2013 the text segment of the duty on climate change contained 743 words, while in 2017 the number was 846). The new DCC was also established within the organisational structure of MONRE. This ministerial department's mandate fully focuses on climate change administration. Paragraph 14, Article 2 of the Decree 36/2017/NĐ-CP stipulates the tasks and powers of MONRE in relation to climate change:

Guiding, examining and implementing of policies, legislation, strategies, plans, programs, projects on climate change after approval by authorities;

Implementing, guiding and evaluating the implementation of the Nationally Determined Contributions (NDC); updating the NDC as required by the Paris Agreement; preparing national reports on climate change;

Taking the lead role in negotiation, endorsement and implementation of international treaties and participating in international organisations working on climate change; mobilising international resources, coordinating and implementing international cooperation projects on climate change within the ministry jurisdiction;

Developing, implementing, managing and monitoring the implementation of the Support Program to respond to climate change (SP-RCC); formulating prioritised criteria, reviewing and identifying prioritised projects on climate change;

Assisting the National Climate Change Committee to facilitate the implementation of and synthesise reports on the implementation of strategies, plans, programmes, projects and tasks relating to climate change by ministries and localities (GoV, 2017b; author's translation).

MONRE is regarded as the environment ministry and the placement of climate change in this ministry implies that climate change is viewed as an environmental concern and not a development issue. MONRE has also been seen as a weak government ministry compared to other sectoral ministries such as the MARD, MOF, or the MPI (Interviewees NS5, SN10). This situation has posed a number of challenges for MONRE in leading and coordinating CCA policy-level actions and project-level activities nationwide.

MONRE is a national-level agency, which consists of departments, research institutes and two universities. MONRE's work on CCA governance in fact is the work of its attached bodies such as the DCC, the IMHCC, the Department of International Cooperation, and the Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE). MONRE's subordinate organisations whose work relates to CCA governance is discussed below.

The Department of Climate Change (DCC) within MONRE

Since 2008, the GoV and MONRE have designated a department within MONRE to manage climate change issues. From March 2008 to May 2017, it was the DMHCC. In 2017, the GoV and MONRE decided to establish a body within MONRE exclusively working on climate change governance. The DCC was then established in May 2017 under Decision 1266/QĐ-BTNMT by the Minister of the MONRE. The creation of the DCC by the GoV and MONRE is a milestone in national climate change institutional arrangements.

Article 2 of Decision 1266/QĐ-BTNMT stipulates the tasks and powers of the DCC:

1. Taking the lead role, and coordinating with relevant agencies in formulating and submitting to the Minister mechanisms, policies, legal documents, strategies, plans, programs, schemes, projects, technical regulations, economic and technical norms on climate change; guiding, implementing and monitoring thereof upon approval.
2. In respect of CCA:
 - a) Guiding and supervising assessment of the impacts of climate change, mainstreaming CCA into development strategies and plans; guiding, inspecting and implementing solutions and models for adaptation to climate change assigned by the Minister.
 - b) Developing and implementing the MRV system for CCA.
 - c) Implementing components relating to loss and damage within the framework of the PA.
 - d) Developing, guiding and monitoring the implementation of the NAP.
8. Taking the lead role, coordinating, guiding, inspecting, and synthesising information, and evaluating the implementation of the NDCs.
9. Taking the lead role, coordinating with other agencies, to implement the UNFCCC, Kyoto Protocol, Paris Agreement and other international conventions relating to climate change assigned by the Minister
10. Developing, implementing, managing and monitoring the policy matrixes under the SP-

RCC; developing priority criteria for selection of climate change projects (MONRE, 2017a; author's translation).

Article 4 of Decision 1266/QĐ-BTNMT stipulates the organisational structure of the DCC. Accordingly there are eight attached affiliations including the Division of Adaptation (DA) which assists the DCC to coordinate adaptation administration nationwide. The DA had actually been established in 2013 (a division of the then DMHCC). In September 2017, the Director of DCC signed Decision 290/QĐ-BĐKH regulating the functions, duties, powers, and organisational structure of the DA (in accordance with the establishment of the DCC in May 2017). The key duties of the DA are developing legislation, strategies, plans, programs, projects, norms, and procedures on CCA; guiding and monitoring climate change impact assessment and mainstreaming CCA into strategies and plans; developing and implementing the MRV of adaptation activities; developing, instructing and monitoring the implementation of the NAP; M&E of the implementation of CCA components in the PA; and updating the CCA component in the NDCs. Basically, the DCC's duties are directly performed or coordinated by the DA (see the hierarchical arrangements of MONRE, DCC, and DA in the figure 6.5).

At the national level, MONRE works with MPI, MOF and other line ministries to govern climate change. Within MONRE, to exercise its duties, the DCC has to collaborate with the Department of Planning and Finance (DPF), the Department of International Cooperation (DIC), Department of Science and Technology, Department of Legal Affairs, and some ministerial research institutes. The DPF is responsible for allocating financial resources for the DCC to carry out its projects and activities and the DIC supports the DCC in international climate change cooperation and negotiation. Both inter- and intra-MONRE interactions are essential for CCA policy-making and implementation processes.

Research institutes within MONRE: Institute of Meteorology, Hydrology and Climate Change (IMHCC) and Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE).

The IMHCC and ISPONRE are two research institutes under the administration of the MONRE. In 2007, the IMHCC was tasked with preparing a NTP to respond to climate change, which was then approved by the Prime Minister under Decision 158/QĐ-TTg in December 2008 (the NTP-RCC mentioned above). This was seen as the first national climate change policy document in Vietnam. The ISPONRE was responsible for the preparation of the Party Resolution 24-NQ/TW which was then adopted by the CPV in 2013. Climate change policy documents were actually prepared by institutions within MONRE, and higher authorities such as the government, NA and the CPV reviewed and made final approval decisions. The research institutes under MONRE's administration play a significant role in the climate change policy processes. The important role of ministerial/sectoral research institutes in the public policy processes in Vietnam was also observed by Shanks et al. (2004). The top-down and bottom-up conventional approaches in public policy implementation therefore do not entirely capture policy implementation in Vietnam. In some cases, the observed approach is 'from-the-middle-out'. In

other words, the intermediate-level bureaucracies and bureaucrats play an important role in the policy process in Vietnam.

Within the GoV, MONRE is one of the key state policy actors in CCA policy-making and implementation and the institutional arrangements for CCA administration within MONRE is summarised in figure 6.6. The DCC is responsible for ‘technical’ issues of CCA management while general affairs departments such as the DPF, Department of International Cooperation, and Department of Legal Affairs are charged with financial management, international cooperation, and legislation in relation to CCA policy implementation respectively. Within MONRE, the DCC has to work closely with the DPF in order to secure funds allocated for CCA projects.

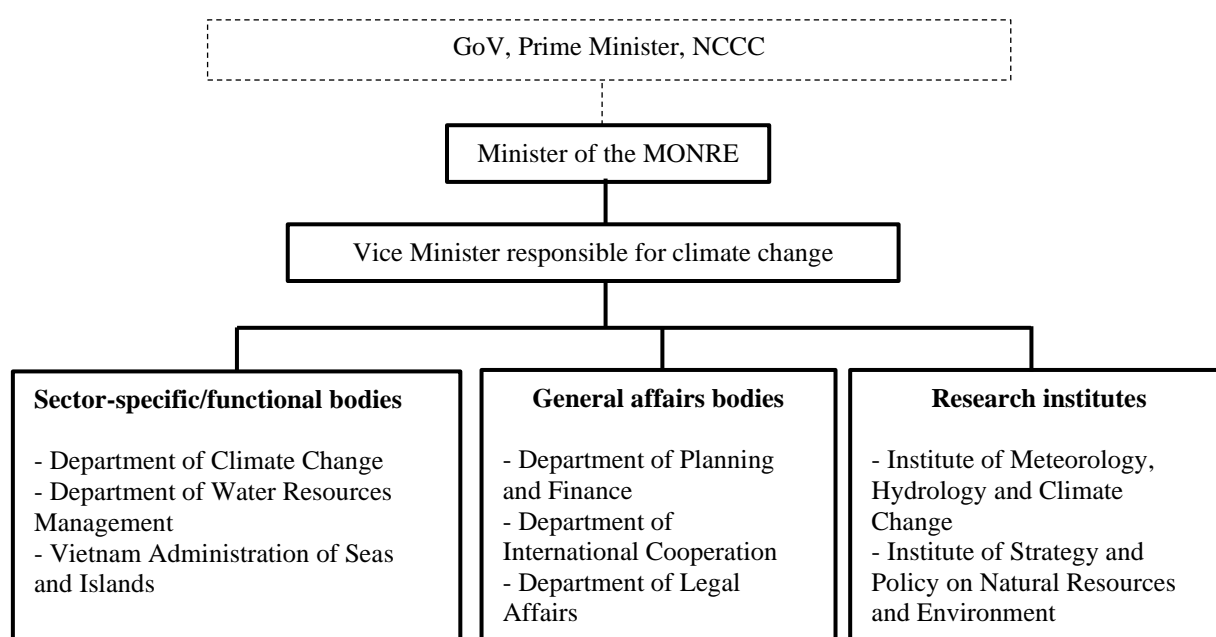


Figure 6.6: MONRE’s organisational arrangements for CCA administration (GOV, 2017b), note that only organisations relating to CCA are listed (source: Author)

The National Climate Change Committee (NCCC)

The NCCC was established by Decision 43/QĐ-TTg dated 9 January 2012 by the Prime Minister. Usually the state does not set up a system of new formal organisations to implement a new public policy but uses the existing institutions within its apparatus. However, in order to direct the coordination between the organisations assigned to implement an inter-sectoral policy, a steering body might be set up to be responsible for the entire implementing process of the policy (Mai, 2001).

MONRE has no authority to tell other ministries what to do, especially when it is a ‘weak’ ministry of the GoV (Interviewees NS5, SN10). This is one of the reasons for the NCCC’s creation. The

establishment of the NCCC reflects the implementation of climate change policy. As such, in the NCCS document of 2011, the Prime Minister requested the establishment of such a committee (GoV, 2011a). In implementing the Prime Minister's directive, MONRE collaborated with line ministries and relevant organisations and proposed the establishment of the NCCC to the Prime Minister. This committee is seen as a coordination platform (Forino, Von Meding & Brewer, 2018). Public policy implementation is often taken in an inter-organisational context in which the issue of coordination is significant, leading to the creation of specialised administrative agencies such as inter-ministerial committees (Howlett & Ramesh, 2003). Administratively, the NCCC is another layer lying between the GoV and MONRE (figure 6.5).

The NCCC was created as an advisory body for the Prime Minister to propose strategic directions and solutions, and mobilise and coordinate resources for climate change response. The committee is an important institutional entity for supervising climate change policy in Vietnam. It is chaired by the Prime Minister and includes one Deputy Prime Minister, the Minister of MONRE, other line ministers and representatives of some of the National Assembly's committees, academic institutions, socio-political organisations (e.g. the Vietnam Union of Science and Technology Associations (VUSTA) and Vietnam Fatherland Front (VFF)), individual scientists and experts (GoV, 2012d). According to two respondents at MONRE, the leadership of the Prime Minister of this committee helps ease the challenges in relation to inter-ministerial (cross-sector) coordination, which is often problematic in public policy-making and implementation in Vietnam (Interviewees SN2, SN3).

The NCCC convenes meetings annually. Each meeting will be followed by an official letter (executive order) communicating the conclusions of the Prime Minister at the meeting. In pursuance to this letter, ministries and provinces take further actions to address climate change issues in accordance with their mandates and circumstances. The eighth session of the NCCC was on 18 May 2017, where Prime Minister Nguyen Xuan Phuc chaired the Session and key attendees included Deputy Prime Minister Trinh Dinh Dung, Minister of Natural Resources and Environment Tran Hong Ha, Minister of Agriculture and Rural Development Nguyen Xuan Cuong (the lead agency for disaster, forestation and agriculture administration), other ministerial representatives, and members of the VPCC. The session was followed by the official Letter 278/TB-VPCP dated 22 June 2017 by the Office of the Government, which requested relevant government agencies and local authorities to take appropriate actions to address climate change. Letter 278/TB-VPCP was circulated to ministries, and provinces and centrally-run cities. In Hai Phong, after receiving the Letter, the Hai Phong MPC issued official Letter 2799/VP-MT dated 5 July 2017 directing all districts and municipal departments in the city to implement the conclusions of the Prime Minister mentioned in the Letter 278/TB-VPCP. Since Do Son is a district of Hai Phong city, the Do Son district People's Committee then issued official Letter 1122/UBND-TNMT dated 31 July 2017 pursuant to the municipal official Letter 2799/VP-MT. In this Letter, the District authority identified some tasks to be implemented by the district-level Division of Natural Resources and Environment, Division of Economic Affairs, Division of Urban Management,

Division of Tourism, Culture and Information, and Communal People's Committees. This is an example of how climate change public management information officially flows top-down from the central to the local level in Vietnam.

MONRE is the Secretariat for the NCCC with the main task to assist the National Committee to facilitate the implementation of strategies, plans, programs, projects and tasks related to climate change response by ministries and provinces (as stipulated in Article 2 of the governmental Decree 36/2017/NĐ-CP on the mandate of MONRE). MONRE delegated this duty to the Standing Office (SO) of the NCCC located within the DCC. Head of the SO is the Director of the DCC. This office has an important role in the feedback mechanism in the climate change policy implementation process. Its main duty is to consolidate reports submitted by line ministries and provinces on their implementation of national climate change policies. The office is tasked with reviewing and monitoring the implementation of the NCCS 2011; National Action Plan to implement the NCCS; NTP-RCC 2008-2011, 2012-2015, 2016-2020; as well as other strategies, programs, and projects relating to climate change response. Information on the implementation of climate change policies by policy actors is reported to the SO and then transmitted to the NCCC for consideration and decision-making. The effectiveness of NCCC's oversight is therefore influenced by the quality of the information that flows to it from the bottom-up from the climate change focal points in line ministries, provinces and project implementers.

Line ministries

Besides MONRE some other government ministries play essential roles in CCA policy implementation such as the MPI and the MOF. The governmental decrees stipulating the mandates of the MPI and MOF do not directly mention any duty on climate change administration. Their responsibilities in relation to climate change response as well as CCA are however, regulated in specific policy documents such as the NTP-RCC in 2008, the NCCS in 2011, and Resolution 120/NQ-CP in 2017. Among 22 government ministries, only two officially have climate change management duties included in their mandates, those are, MONRE and the MARD.

MOF's duties on costing and financing mechanisms and procedures determines follow-up policy implementation at sectoral and local levels. The MPI is another powerful policy actor and is charged with the role of state management over planning and capital investment, mobilising and coordinating official ODA from international donors for development in Vietnam including climate change response. The MPI is also tasked with formulating and guiding the implementation of the framework to mainstream climate change into socio-economic development strategies and plans (see chapter eight). The MPI is the national designated authority to the GCF which is currently sponsoring two projects in Vietnam (MONRE is the national focal point for the GEF and AF). MONRE, MPI and MOF have a shared responsibility for CCA administration in Vietnam. The technical guidelines of MONRE are significant, however, the financial guidelines by MOF and MPI are extremely important

to get CCA activities funded and then implemented on the ground.

The main responsibilities of key national government agencies in relation to CCA policy implementation are summarised in table 6.5.

Table 6.5: Responsibilities of government agencies in CCA policy implementation

State agency	Responsibility
National Climate Change Committee (NCCC)	Directing and coordinating CCA policy-making and implementation among ministries, provinces and centrally-run cities.
Ministry of Natural Resources and Environment (MONRE)	The lead government ministry in CCA policy implementation. The national focal point to international climate change policy frameworks.
Department of Climate Change (DCC)	Functional department within MONRE responsible for state management of CCA (departmental focal point).
Ministry of Planning and Investment (MPI)	Investment for CCA (allocation of investment capital for CCA related projects especially infrastructure related projects and coastal forestation projects).
Ministry of Finance (MOF)	CCA expenditure (allocation of recurrent budget, spending norms; regular tasks and annual operational costs of public agencies working on climate change sector).
Other ministries: Ministry of Agriculture and Rural Development (MARD); Ministry of Construction, Ministry of Transport; Ministry of Health, Ministry of Education and Training; Ministry of Culture, Sports, and Tourism; Ministry of Science and Technology; Ministry of Industry and Trade	Implementing policy-level actions (developing action plans) and project-level activities (delivering projects funded from the NTP-RCC) to respond to climate change in their sectors.

Source: GoV (2008, 2011a)

Policy actor interactions

Institutional arrangements help frame the rules-of-the-game and linkages among policy actors. Hall (2009, p.236) raised a practical question in relation to implementing public policies: “If there are multiple agencies and jurisdictions involved and/or private or non-government partners, how will efforts be coordinated?” In Vietnam, the interactions among policy actors are partly integrated by the flow of information throughout government agencies. However, in CCA policy implementation cross-sector cooperation is problematic and cross-level (central-local) cooperation seems better owing to the top-down financial mechanism (see section 6.3.6). According to one government official working for MONRE, there is no problem in MONRE and provincial collaboration since the Ministry grants funds to the provinces, however collaboration between MONRE and other ministries is challenging. Problems have arisen from overlapping functions and every ministry wants its mandated power to overshadow others with the MPI insisting that the NTP-RCC belongs to its functions (Interviewees SN2, NS3).

In Report 141/BC-CP dated 15 May 2014 that the GoV circulated to the NA on the implementation progress of policies and legislation on climate change in the Mekong River Delta, the GoV asserted that there remained limitations in collaboration between government ministries in implementing climate change policies and legislation. The coordination and state management mechanisms used by MONRE, the lead agency in climate change governance, confronted difficulties due to a lack of a comprehensive legal framework. Line ministries and localities and other stakeholders such as social organisations, NGOs, business community in climate change response were unclear of their responsibilities (GoV, 2014a). Prolonged problems in respect of cross-sector (inter-minister) coordination in Vietnam were also reported in a study on CCA in the health sector by Gilfillan et al. (2017).

As a consequence of the hierarchical governance of public issues in Vietnam (Gilfillan et al., 2017; Benedikter, 2016), public agencies only take actions when they are requested by higher level authorities. The request can be formally stated in their functions and duties or in particular executive orders.

Under the SP-RCC, policy actions need to be implemented by government ministries so that the GoV can receive ODA from international donors (conditional loans). The SP-RCC is managed by MONRE, however, the ministry is unable to ask line ministries to take policy actions. Therefore, the decisions on identifying and delegating policy-level actions within the SP-RCC have been raised up to the Prime Minister level. It gives these actions a higher level of legitimacy to be implemented although the administrative procedures get more complicated. This highlights the significant role of the NCCC, chaired by the Prime Minister, in coordinating climate change governance in Vietnam. Due to weak inter-agency cooperation with MONRE in CCA administration, the Prime Minister needs to be involved. MONRE, the lead ministry in CCA, is unable to request line ministries to take actions, as a respondent noted:

It is impossible for a Minister to ask other Ministers to take actions, the direction must go through the NCCC which is chaired by the Prime Minister (Interviewee SN3)

The ‘weakness’ of MONRE affects its coordination ability in CCA governance at the national level especially where government agencies rigidly comply with their mandates; division of roles, responsibilities and powers; and priorities. Indeed, government agencies often function according to specific routines (Rahman & Tosun, 2018), and distinct rules (Peters, 2015a). In this regard, a senior government official working for MONRE complained:

Sometimes we [MONRE] want the MARD to step up an issue [climate change], they say it is not the priority of MARD (Interviewee SN1).

Chapter four had noted the issue of vertical silos in Vietnamese government structures. Each sector (e.g.

natural resources and environment, agriculture and rural development, planning and investment has their own vertical ‘network’ from national to commune level (figure 4.1). The ‘silo effect’ (Exworthy & Powell, 2004) is strong in the Vietnamese context due to the mandate issues mentioned above. Government agencies do not cooperate effectively due to bureaucratic fragmentation and separatism (Sajor & Minh Thu, 2009) and ambiguous accountability (Fritzen, 2007). Similarly, Phuong et al. (2018, p.8) stated that “[t]he hierarchical system has also resulted in ‘silofication’ where departments stick to their legally determined tasks and responsibilities and hardly share information or coordinate actions”. The establishment of the NCCC is a solution to addressing the ‘silo effect’ in Vietnam. Given that it is chaired by the Prime Minister, the NCCC is powerful enough to tell ministries what to do (Interviewee SN3).

At the national level, ministries interact under the framework of the NCCC, which coordinates the activities of relevant government agencies. The Chairman of the NCCC (the Prime Minister) issued the working regulation of the committee under Decision 25/QĐ-UBQGBĐKH in March 2012. According to this regulation, members of the committees (ministers) have to designate focal points in their ministries to cooperate with the DCC of MONRE in relevant work. Ministries often involve themselves in CCA governance when: (1) they are requested by the Prime Minister to do so; and (2) they have projects requiring funds from the three climate change programs which are administered by MONRE (the NTP-RCC, SP-RCC, and Science and Technology for the NTP-RCC).

The ‘rules of the game’ that glue policy actors in implementing a particular policy or program are often regulated in the text of that policy or program. For example, in the NTP-RCC, the roles of policy actors and stakeholders and the mechanisms that they embody in the implementation process of the program are regulated in Article 2 of Decision 158/QĐ-TTg approving the program, and in relevant decisions such as the regulation on management and administration of implementation of NTPs adopted by the Prime Minister in Decision 135/2009/QĐ-TTg in November 2009. Decision 135 stipulates the responsibilities of ministries and local authorities and the procedures of preparation, appraisal, approval, management, and administration of the implementation of NTPs (GoV, 2009a). This decision also regulates implementation arrangements of NTPs at national and local levels, e.g. establishment of steering committees. In Decision 158, the Prime Minister requested the MPI be responsible for investment capital arrangements and MONRE to take the overall management role of the program (table 6.6). MONRE uses the Prime Minister’s ‘orders’ to ask for cooperation from other government agencies.

Table 6.6: Collaborative responsibilities of agencies in implementing the NTP-RCC 2008-2011

Agency	Collaborative responsibilities in implementing the NTP-RCC 2008
Ministry of Natural Resources and Environment (MONRE)	Collaborating with ministries in formulating mechanisms for management, administration, and guiding the implementation of the program.

Agency	Collaborative responsibilities in implementing the NTP-RCC 2008
Ministry of Planning and Investment (MPI)	<p>Collaborating with the MPI to develop a mechanism to monitor and evaluate the implementation of the program.</p> <p>Collaborating with ministries and localities in formulating and guiding the implementation of a framework for mainstreaming climate change into socio-economic development strategies, programs and plans.</p>
Line ministries and governmental agencies	<p>Collaborating with MONRE to develop a mechanism to monitor and evaluate the implementation of the program.</p> <p>Implementing the tasks assigned in the program, and actively participating in joint coordination activities under the direction of the National Steering Committee.</p>
People's Committees of provinces and centrally-run cities	<p>Implementing the tasks assigned in the program, complying with the monitoring and evaluation principles specified in the program, and reporting on the progress of implementing the program's objectives and tasks in the localities.</p>
Social organisations, NGOs and enterprises	<p>Encouraging socio-political, social-professional organisations, mass organisations, NGOs and enterprises to actively participate in activities responding to climate change.</p> <p>Implementing or participating in the implementation of projects in the program and in the action plans of ministries, provinces and cities.</p>

Source: GoV (2008)

Similar to the requirements on collaboration among governments in the NTP-RCC 2008, the NCCS 2011 also requested relevant agencies work together under the lead coordination of MONRE to implement the Strategy (GoV, 2011a) (table 6.7). However, it is important to note that these are cooperative responsibilities in 'papers'. The regularisation of collaboration responsibility does not ensure that the interaction of central government agencies in CCA policy implementation is without problems. In practice, the interactions between government agencies are determined by many factors including informal and unstated rules.

Table 6.7: Collaborative responsibilities of agencies in implementing the NCCS 2011

Agency	Collaborative responsibilities in implementing the NCCS 2011
Ministry of Natural Resources and Environment (MONRE)	<p>Collaborating with the MPI and MOF to compile and review budget demand for climate change response activities to report to the Government.</p>
Ministry of Planning and Investment (MPI)	<p>Collaborating with ministries and localities in formulating and guiding the implementation of a framework for mainstreaming climate change into socio-economic development strategies, programs and plans.</p> <p>Collaborating with MONRE to develop a mechanism to monitor and evaluate the implementation of the Strategy.</p>
Line ministries and governmental	<p>Actively participating in joint coordination activities under the direction</p>

agencies	of the Government.
People's Committees of provinces and centrally-run cities	Reporting on the progress of implementing the strategy's objectives and tasks in the localities.
Social organisations, NGOs and firms	Actively participating in activities responding to climate change. Implementing or participating in the implementation of projects in the strategy.

Source: GoV (2011a)

MONRE has taken climate change policy actions in accordance with its mandated functions and has been assigned climate change duties by the government under a legal government decree. The practice of governing public issues in Vietnam shows that a government agency may refuse or be unwilling to take action on a particular matter which is not officially defined in its functions and duties or not stated in any regulatory document. In some cases, the agency may take actions but with a 'symbolic' manner. The formal mandates set the 'rules of the game' under which public agencies operate.

The interaction between public agencies at national level is a key barrier to CCA policy implementation. Cooperation is a very challenging issue, especially with respect to policy (Interviewee SN3). According to a representative from an international development partner, cooperation is always a difficult problem in Vietnam (Interviewee NS4). A senior government official working for the DCC even stated that foreign stakeholders coming to Vietnam are 'scared' of the domestic cooperation challenge (Interviewee SN2). One solution to the cooperation problem is to get higher level authority involved in coordination work. Pushing work up to the Prime Minister is a common approach that ministries use when they face problems in coordination and collaboration. As previously noted, the MONRE makes use of the NCCC to facilitate climate change administration.

Interactions between MONRE, MPI, and MOF determine the likelihood and adequacy of climate change policy implementation. The MPI plays a critical role in deciding on investing adaptation projects because of its mandate on investment development management. In official Letter 970/BKHĐT-KHGD TNMT dated 02 December 2013 submitted to the Prime Minister, the MPI rejected MONRE's proposed new 19 CCA projects and only suggested that eight be supported. This means that although MONRE is the lead agency in CCA governance the allocation of investment funds to realise CCA policy objects falls in the hands of the MPI.

At a national level, MONRE has to cooperate with the MPI and MOF in arranging financial resources for climate change policy implementation. Within MONRE, the DCC has to work with the DPF in allocating funds for its activities and projects in relation to performing its duties on climate change response. Even intra-cooperation among departments in MONRE is problematic in policy-making, planning, project implementation, and sharing information (Interviewee SN5). In respect of sharing information, the interviewee stated:

The worst thing is, I can tell you, not only between the Vietnam Administration of Sea and

Island and Department of Climate Change but all other bodies within the Ministry, not to mention outside the Ministry [MONRE and other ministries], there is no information sharing. All departments want to keep their own data.

There is also a phenomenon of ‘symbolic’ cooperation. Public agencies consult each other and NGOs since it is required by higher level authority but in a manner that does not improve the quality of public management performance. Consultants often receive documents requesting comments close to deadlines. An interviewee working for MARD noted that documents sent to MARD to seek comments on climate change issues often arrive at the last minute and there is no time left for relevant bodies of MARD to review and provide quality insights (Interviewee SN10). It is such day-to-day administrative practices that affect CCA policy implementation. Problems do not necessarily come from ‘high level’ policy and direction, rather it is the regular work of and cooperation between departments and their bureaucrats within ministries that can create difficulties.

6.3.5. National policy networks

The national policy networks are groups of actors and stakeholders involved in CCA policy implementation at the national level. Unlike the institutional arrangements which are formal and rigid, the policy networks are flexible and form during the policy implementation process (figure 6.7).

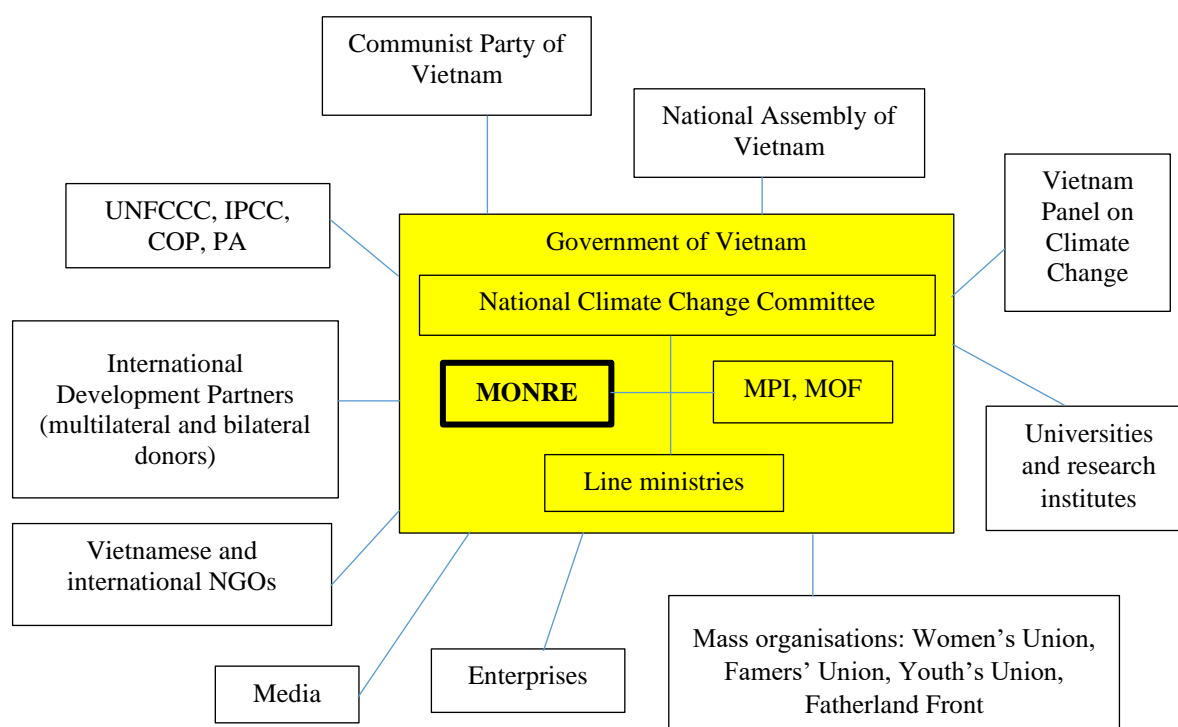


Figure 6.7: National CCA policy networks, GoV is the core agent, other stakeholders may interact with each other, e.g. donors and NGOs (source: Author)

The Communist Party of Vietnam (CPV)

The CPV and its local apparatus interfere in the CCA policy process as a result of its constitutional function. The relationship between the party's organisations and government agencies are regulated in Vietnam's Constitution. Another pathway by which the party intervenes in the state's work is through its members who hold the most important positions at all four government levels. At the national level, the Prime Minister, Chairman of the NCCC and all ministers including the Minister of MONRE are all CPV's members.

In Vietnam, the CPV is the only political party operating at all administrative levels. The CPV is the most important force in Vietnamese politics, with the NA and GoV all effectively subordinate to its guidance (Phong, 2016). The CPV plays an important role in the policy process in Vietnam. Political decisions are made by the Party Congress, the Party Central Committee, or the Politburo. These political decisions are then legislated and institutionalised by the NA, the GoV and its ministries.

The role of the CPV in policy processes in Vietnam was mentioned by a university lecturer of public administration (Interviewee NS8): "for foreign countries this is a new issue [the extensive involvement of political party in the government policy process]. When discussing the factors affecting the implementation of public policy in Vietnam, the CPV is an important one as well as the political-social organisations; this is a highlight in the Vietnamese context". In respect of climate change policy, in 2013 the CPV adopted one of the key CCA policy documents in Vietnam (Resolution 24-NQ/TW). Additionally, some respondents working for government agencies at the national level acknowledge the leadership role of the CPV in CCA policy implementation (Interviewees SN9, SN1, SN3).

The National Assembly of Vietnam (NA)

The NA is involved in the CCA policy process through deciding national public investment funds allocation, including funds for CCA investment projects, and monitoring and evaluating government performance in implementing public policy, including climate change policy. As of August 2019, the NA has not yet passed any legislation specifically on climate change or CCA but some sectoral laws do mention climate change response such as the *Law on environmental protection 2014* and the *Law on meteorology and hydrology 2015*. The *Constitution of Vietnam 2013* passed by the NA also mentions climate change in Paragraph 1, Article 63.

In 2014 the NA conducted a M&E plan on the implementation of climate change policies and legislation in the Mekong River Delta, which was followed by a NA Resolution in 2014 (853/NQ-UBTVQH13). In this resolution, the NA asserted that:

Climate change is a new issue, therefore the formulation and adoption of policies and legislation on this sector remain not timely and comprehensive; there is a lack of policies and mechanisms

to encourage communities and enterprises to effectively participate in climate change response especially in the Mekong River Delta. Regional master planning has not considered climate change factors; awareness of climate change is limited; resources for climate change response are inadequate; investment projects to respond to climate change are still scattered and lacking inter-regional, inter-sectoral and long-term considerations, especially investment in climate change response in the Mekong River Delta (NA, 2014).

According to Hoa (2016), the CPV and the NA are stakeholders in the policy implementation process and the GoV needs to enlist political and financial support from them in implementing public policies. The GoV and the MONRE have been supported by the CPV in the course of climate change governance, specifically through Resolution 24-NQ/TW of the Party in 2013. As a legislative and supreme supervision body of the State, the NA works in tandem with the GoV in climate change governance through budget allocation, M&E and passing sectoral legislation which integrates CCA.

International development partners

This group of actors have significantly contributed to shaping the climate change policy landscape in Vietnam as well as policy implementation. For example, the formulation and introduction of the first climate change policy document (NTP-RCC 2008) was largely supported by the Danish Government (Zink, 2013; Zimmer et al., 2015; also Interviewees SN1, SN3).

The specific mechanism that facilitates development partners' involvement in the climate change policy process in Vietnam is the SP-RCC Program. International development partners have provided ODA to Vietnam with a condition that government ministries have to take policy-level actions (formulation and adopting policies and legislation in relation to climate change response). Over the 2010-2015 periods, there were over 300 policy-level actions implemented by ten ministries, and Vietnam received over one billion USD from international donors (GoV, 2016c).

Multilateral and bilateral donors have recently begun applying a multi-sectoral approach rather than funding single sectors. ODA projects run across some sectors with demonstrations in specific localities, e.g. the WB has lent the GoV USD 310 million to implement project 'Mekong Delta integrated climate resilience and sustainable livelihoods' which is co-implemented by the the MONRE, MARD, MPI, and nine provinces in the Mekong Delta, including Soc Trang province (MARD, 2016). This approach helps coordinate different actors. Donors also often request more involvement of non-state actors in project implementation. Therefore, the role of ODA goes beyond financial matters, and affects the nature of public governance.

Besides working directly with the GoV to address climate change, international donors view NGOs as intermediaries between them and local beneficiaries. They funded specific climate change related projects which were directly carried out by NGOs. International development partners influence

climate change response in Vietnam through two channels: (1) government system with foci on policy development and implementation, and funding large-scale investment projects (top-down approach); and (2) funding NGOs to implement small-scale projects on the ground, targeting the poor and most vulnerable to climate change impacts, foci are on awareness raising, livelihood diversification, and capacity building (a bottom-up approach addressing root causes of vulnerability).

There are some international projects, funded and directly implemented by international organisations, such as the project supporting the GoV in implementing the PA by the GIZ (Germany) from 2018 to 2022. GIZ directly executes the project, procures international consultancy services to support MONRE to review and update the NDCs and engages in capacity building for MONRE staff (GIZ, n.d.). These project-level activities and international actors together with government agencies and public management of CCA have contributed to the formation of climate change policy networks in Vietnam.

The Vietnam-Netherlands Intergovernmental Committee on CCA and water management is a bilateral committee jointly chaired by a Deputy Prime Minister of Vietnam, and Deputy Prime Minister of the Netherlands, and consists of representatives from relevant ministries. On Vietnam's side, a standing Committee was established in 2011 (GoV, 2011c). MONRE is the Standing Agency of the Committee from the Vietnamese side. The Standing Office of the Vietnam-Netherlands Committee is placed in the DCC, MONRE. A Deputy Director of the DCC is the head of the office. The Mekong Development Plan, which was created in 2013 under the leadership of the intergovernmental Committee, translated Dutch CCA knowledge and ideas to Vietnam (Weger, 2019).

Non-governmental organisations (NGOs)

The role of international and Vietnamese NGOs in CCA policy-making and implementation in Vietnam is significant. A number of government officials acknowledged NGOs' role (Interviewees SN1, SN2, SN3). A respondent at MONRE stated that "NGOs approach [climate change] from the bottom up, they work directly with communities not the provincial governments and their contributions are also very effective and practical" (Interviewee SN1). Some international NGOs working on climate change in Vietnam are World Vision in Vietnam, CARE International, Oxfam, Plan International, and SNV in Vietnam. The two active Vietnamese NGOs are the Centre for Sustainable Rural Development (SRD), and Centre for Marinelife Conservation and Community Development (MCD). The SRD and MCD have been implementing a number of climate change related projects at the communal level (VUFO - NGO Resource Centre Vietnam, n.d.)

NGOs are actively involved in climate change responses in Vietnam. A Climate Change Working Group (CCWG) founded in February 2008, brought together international and Vietnamese NGOs to engage in government climate change response activities. This is a network where interested NGOs share information, knowledge and resources on climate change actions. Another network is the

Vietnamese NGO and Climate Change Network (VNGO&CC), which was also established in 2008 (VUFO - NGO Resource Centre Vietnam, n.d.).

The CCWG focuses on project-level activities in rural, poor and highly vulnerable communities (supporting localised responses). One of the goal statements of the CCWG is reducing the vulnerability of poor people in Vietnam to the impacts of climate change (VUFO - NGO Resource Centre Vietnam, n.d.). A number of community-based climate change initiatives have been conducted and documented by NGOs and these initiatives are seen in line with local needs, addressing the root causes of vulnerability. NGOs take the bottom-up approach in CCA as opposed to the top-down approach of government agencies.

At the national policy level, NGOs have been involved in the preparation of the NTP-RCC in 2008, the NCCS in 2011, and the preparation of the Intended Nationally Determined Contributions (INDC) to submit to the UNFCCC Secretariat. After COP21 in 2015, the CCWG and NGOs in Vietnam joined the GoV and MONRE in implementing the PA, specifically the development of a NAP (Interviewees NS1, NS2). The CCWG and NGOs play a role in climate change policy formulation and especially in implementation in Vietnam at the local level. They have helped bridge authorities and local residents' needs and facilitated a more participatory and inclusive CCA policy process.

The DCC has signed three memorandums of understanding with NGOs, in 2011, 2014, and 2019. In 2011, the DMHCC (now the DCC) signed a memorandum of understanding for collaboration, cooperation and sharing information on climate change with two NGO networks working on climate change: the NGO CCWG and the VNGO&CC. In 2014, the DMHCC signed a cooperation agreement with six NGOs to research and evaluate CCA models deployed in Vietnam from 2010 to 2014 (SRD, MCD, PLAN Vietnam, Norwegian Church Aid, SNV Netherlands Development Organisation, and CARE Vietnam). In March 2019, the DCC signed a memorandum of understanding on cooperation in climate change with the CCWG and VNGO&CC.

Different to state actors, the international donors and NGOs have funds and knowledge, but no formal mandates to take actions in the CCA policy implementation process in Vietnam. They are not decision-makers but play important roles in CCA policy-making and implementation in Vietnam. However, the extent of NGOs' involvement in the CCA policy implementation process depends on: (1) legal regulations on establishment and operation of NGOs in Vietnam; (2) the approach to adaptation taken by government agencies, for example the 'soft' approach will create more opportunities for NGOs's participation than the 'hard' adaptation approach which focuses on infrastructure investment; and (3) the willingness of the state to outsource its CCA tasks.

A problem in respect to NGO's involvement in CCA has resulted from the bottom-up approach they have taken. NGOs work directly with local communities and people, therefore central government agencies such as MONRE (the lead agency for climate change governance nationwide) do not monitor

their activities whilst reports from local authorities and line ministries on NGOs' activities are not always sufficient and up-to-date (Interviewee SN3). This amplifies the challenge in relation to MRV adaptation. The total adaptation efforts taken by government agencies, NGOs, enterprises, farmers and households have not been fully stocktaken.

The Vietnam Panel on Climate Change (VPCC)

The VPCC was established in early 2015 and is chaired by the Minister of MONRE, and members are the country's leading scientists on climate change impacts, climate change response and green growth. The VPCC works as the IPCC but in and for Vietnam and is seen as a network of climate change experts. The VPCC's duties are to advise the government and the NCCC on both policy and scientific aspects to effectively respond to climate change. It is responsible for proposing solutions and programs, projects to raise awareness and strengthen capacity, and develop human resources to respond to climate change. Reports prepared by the VPCC should be the basis for formulation and implementation of national socio-economic and sectoral development plans in the context of increasing climate change related impacts. This model is similar to the Panel of Technical Experts in the Philippines, which was established to provide technical advice to the Climate Change Commission of the Philippines in climate change science and technology, and best practices for risk assessment and improvement of adaptive capacity (Oulu, 2015).

Research institutes and universities

Sectoral research institutes have an important role in policy formulation at the national level (Shanks et al., 2004). Two of the three key national climate change policies (the NTP-RCC in 2008 and Party Resolution 24 in 2013) were developed by the research institutes within MONRE (ISPONRE and IMHCC).

Universities and their academics also play a role in climate change policy processes. They have contributed to research on climate change science and responses as well as organising conferences that can contribute to policy and scientific discussions (Hung, 2018). Under the National Science and Technology Program for NTP-RCC for 2011-2015, a number of research institutes from universities and government agencies implemented climate change research projects (National Climate Change Database, 2019). The National Science and Technology Program for NTP-RCC 2011-2015 and 2016-2020 created opportunities for universities and research institutes to be involved in the CCA policy implementation process in Vietnam through project-level activities.

Media

The mass media and cyberspace serve as a communication channel between state and society, and a 'watchdog' disclosing wrongdoings. The development of social media (e.g. facebook) has made the public better informed about political, economic and environment issues of public concern including

climate change, whereas the press in Vietnam has always been regarded as a strong propaganda instrument of the party-state (Bui, 2016). For example, in respect of reporting wrongdoings in implementing CCA policy and legislation, in January 2019 Dantri online newspaper, one of the most popular newspapers in Vietnam, reported on financial mismanagement of two CCA projects in Soc Trang province funded from the NTP-RCC and SP-RCC (Duong, 2019a).

MONRE has cooperated with mass media to implement climate change awareness raising activities. For example, under the framework of the NTP-RCC from 2010 to 2015, MONRE implemented a project entitled “collaborating with radio and television stations at central and local levels, newspapers and magazines to arrange dissemination, propaganda and awareness raising for the general public about the impacts of climate change and response measures” (MONRE, 2012a).

Enterprises

In Vietnam, state-owned enterprises (SOEs) are often involved in implementing public-funded development projects and therefore contribute to implementing public policy. According to a 2015 report co-produced by the MPI, WB and the UNDP, some climate change response projects (both mitigation and adaptation) delivered services through central or provincial SOEs which used direct government spending, especially in forestry, irrigation sectors and coastal defense infrastructure which are managed by MARD (MPI, WB & UNDP, 2015). The SOEs have a role in CCA implementation in the Vietnamese context. For example, Hai Phong city tasked and funded a municipal SOE with four adaptation projects in its climate change action plan. It is also common that SOEs carry out state-funded projects through bidding processes organised by public agencies to select contractors. This is the main pathway (using state budgets) through which public and private enterprises have been involved in CCA policy implementation in Vietnam (project-level activities). Firms have not used their own capital in CCA. Although private enterprises have been encouraged to participate in CCA their involvement is scant owing to low returns on investments and a lack of specific government mechanisms and incentives (Interviewees SN1, SN2).

Socio-political organisations and mass organisations

These organisations include, for example, the VFF, the VUSTA, the Vietnam Women Union, Vietnam Farmer Union, Ho Chi Minh Communist Youth Union, and a number of professional associations. The VFF (a socio-political umbrella organisation under the control of the CPV) has a designated function of overseeing government exercises. It therefore has power to M&E the implementation of climate change policy by government agencies. A Vice President of VFF is also a member of the NCCC. The VUSTA is a socio-political organisation of Vietnamese science and technology intellectuals. It is the biggest network of non-governmental science and technology organisations in Vietnam with a membership of 79 associations and 63 provincial and municipal branches (VUSTA, 2017). The President of VUSTA is a member of the NCCC. The Farmer, Women and Youth Unions mostly

participate in activities relating to raising awareness on climate change. NGOs often cooperate with these unions when carrying out their climate change-related projects in local communities.

Legislation regulates the involvement of such organisations in the public policy process (Decision 217-QĐ/TW by the CPV in 2013). The key climate change policies in Vietnam such as the NTP-RCC 2008 and NCCS 2011 all highlighted the need for the participation of civil society organisations in climate change response activities. However, there remains a lack of specific mechanisms for their participation in climate change policy consultation as well as project implementation.

In November 2017, the VFF, Vietnam Trade Union, Vietnam Women's Association, Youth Union, Farmer Association, War Veteran Association, VUSTA, and Vietnam Medical Association signed a cooperation plan with the MONRE on M&E of the implementation of policies and legislation on environmental protection, mineral exploitation, and climate change response for 2017-2019. The main purposes of the plans are to improve the effectiveness of the implementation of policies and legislation; raise awareness; and recommend changes in policies and legislation (CCVFF, CCSPO, VUSTA, VMA, & MONRE, 2017). The involvement of these organisations in the policy processes is based on regulations by the CPV, the NA, and the GoV, specifically the *Law on Vietnam Fatherland Front 2015*, Decision 217-QĐ/TW by the Politburo of the CPV on monitoring and social criticism of the VFF and socio-political organisations, regulation on cooperation between GoV and VFF. Such organisations only have 'power' to 'interfere' in the work of government where institutional arrangements (rules of the game) allow it.

The non-government CCA policy stakeholders (informal actors) together with the formal, governmental actors mentioned above have created CCA policy networks at the national level. The SP-RCC facilitates the formation of the networks at national level through the policy dialogue forum between ten government ministries and six international partners: JICA; the French Development Agency (AFD); the Canadian International Development Agency (CIDA); the WB; the Australian Department of Foreign Affairs and Trade (DFAT); and the Export-Import Bank of Korea (K-Eximbank). Additionally, through the SP-RCC and the NTP-RCC, NGOs, e.g. the Climate Change Working Group, which consists of both international and Vietnamese NGOs, and the private sector, e.g. the Vietnam Chamber of Commerce and Industry, have been given opportunities to participate in climate change policy dialogue, and information and knowledge sharing.

6.3.6. Financial mechanism for climate change adaptation

The adequacy and effectiveness of CCA policy implementation depends on how CCA related projects are carried out, which significantly depends on budget availability and how capital is allocated by authorities and used by implementers. There are two main sources of funds for CCA policy implementation: state budget; and international donors. There was no evidence that private sectors have funded CCA activities in Vietnam during the 2008-2018 period (they have been involved but not

funded). There are five funding channels from the two sources for CCA policy implementation including the NTP-RCC, SP-RCC, Science and Technology Program for NTP-RCC, internationally funded projects (ODA), and the annual SEDP (figure 6.8). The SP-RCC is a locally directed financial source, funds from this Program have been allocated directly for provinces to implement CCA-related projects and are decided by the Prime Minister and national ministries: the MONRE; MOF; and MPI. The financial mechanism for CCA policy implementation in Vietnam is mostly top-down, although some CCA activities are funded from local budgets (see chapter seven).

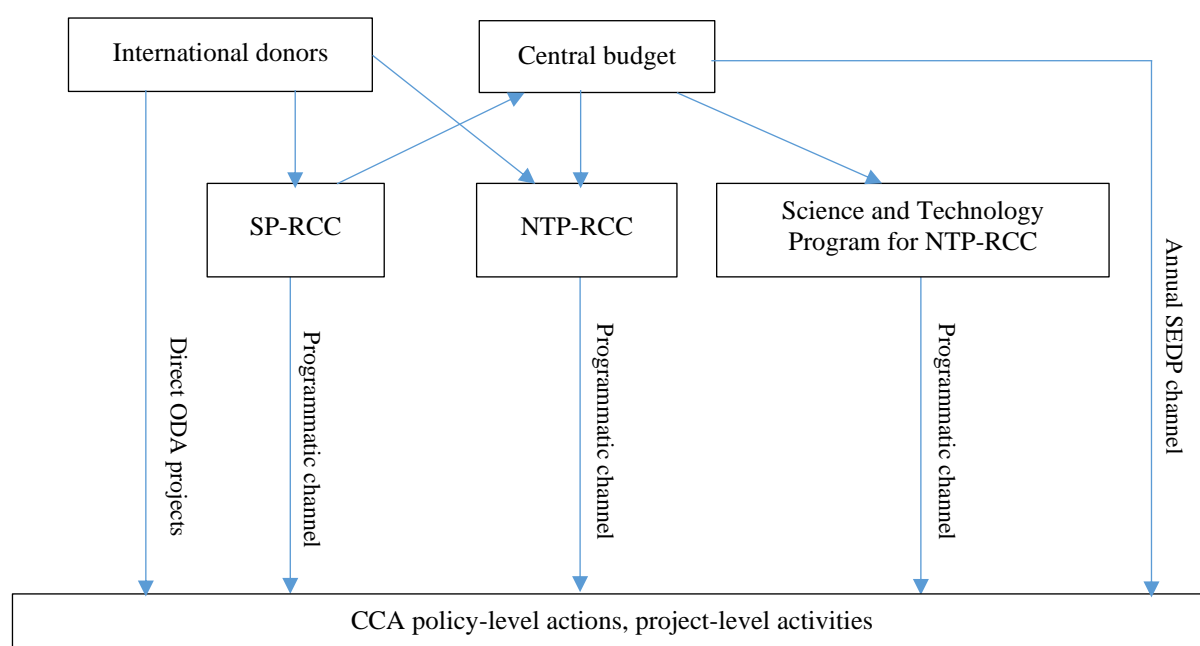


Figure 6.8: The key financial sources and funding mechanism for implementing CCA policy in Vietnam (source: Author)

Financial mechanisms for CCA are stated in important policy documents and programs. For example, the NTP-RCC 2008 (Decision 158/QĐ-TTg) stipulated that the state ensures necessary resources and mobilises contributions from international and domestic communities; and creates a legal basis to encourage the participation of socio-economic sectors, and domestic and foreign organisations to invest in responding to climate change (GoV, 2008). The national plan to implement the NCCS (Decision 1474/QĐ-TTg in 2012) calls for:

Actively investing from the state budget, facilitating mobilisation of international funding for climate change activities; developing and applying domestic financial mechanisms in line with international climate change policies; effectively using financial resources to respond to climate change in the direction of focused and efficient investment. Encouraging and mobilising domestic and foreign organisations, individuals and enterprises to provide financial investment for responding to climate change (GoV, 2012h, p.4; author’s translation).

The MONRE, MPI, and MOF jointly issued two ministerial circulars guiding the management and expenditure of the state budget to implement the NTP-RCC (Circular 07/2010/TTLT-BTNMT-BTC-

BKHĐT dated 15 March 2010) and the SP-RCC (Circular 03/2013/TTLT-BTNMT-BKHĐT dated 5 March 2013). These circulars are legal regulations. Financing and investment management procedures are critical for the implementation of particular programs and projects and have a significant impact on how public policies are implemented at lower levels.

The implementation of CCA policy largely depends on the availability of overall financing and investment guidelines and sources which are mainly the functions of the MOF (recurrent expenditure) and MPI (capital investment), not the MONRE. In the GoV machinery, all sectoral ministries rely on the MOF and MPI for budget allocation to implement public policies. Sectoral ministries deal with ‘technical’ dimensions of public issues while the MPI and MOF provide financial resources to realise the identified ‘technical’ measures. These institutional arrangements are consistent across all government levels. ‘Technical’ agencies such as the MONRE have to negotiate with financial agencies to secure funds for their activities. This negotiation process is part of public policy implementation in Vietnam. A government official working for the MPI highlighted that MONRE and MARD only deal with technical issues. If financial issues and agencies are not considered and involved in CCA planning then there is no way relevant projects are included in the socio-economic development plan and then get funded for implementation (Interviewee SN8). This finding reinforces the argument in the implementation literature that public policy implementation is about the bargaining, exchange, and negotiation among policy actors (Hall, 2009). According to Decision 1183/QĐ-TTg dated 30 August 2012 by the Prime Minister approving the NTP-RCC for the 2012-2015 period, the total estimated funding for the implementation of the program was USD 77 million (VND 1,771 billion). For 2010-2015, the program was actually allocated USD 59 million (VND 1,370 billion), equivalent to about 77.48% of the total approved budget. Since the annual capital allocation for the program was inadequate, many tasks and projects were prolonged and some were not allocated funds for implementation which led to some programs’ objectives not being completed, especially those to be implemented at the local level (DMHCC, 2015). The availability of state budgets therefore determines the implementation of CCA projects, which influences the realisation of CCA policy objectives. This ‘availability’ depends on factors such as negotiations between the MONRE (technical agency) and the MPI and MOF (financial agencies).

In respect of the international financial source (see section 6.2.2), the GEF and the GCF are the two key climate change funds of the UNFCCC and the PA. Additionally international development agencies (e.g. UNDP), banks (e.g. WB, ADB), and bilateral donors (e.g. Japan, Denmark) have also been involved in financing CCA related projects in developing countries including Vietnam. International donors either directly funded CCA activities or transfer their funds to the general state budget which is managed by the GoV. However, a problem with the SP-RCC is that donors could not monitor funds that are actually allocated for climate change response (Interviewee NS5). In fact, according to the MONRE only 20% of funds from the SP-RCC were allocated for climate change projects, the rest were allocated for development investment of non-climate sectors (Government

Office, 2018). Development partners (donors) were not happy with how the SP-RCC funds have been used by the GoV (Interviewee NS5). According to the MONRE (2016), some international partners have withdrawn from the list of potential donors, such as DFAT, CIDA, and K-Eximbank. One of the reasons being that the proportion of mobilised capital used through the program for activities to respond to climate change is low.

There is no specific budget line designated for climate change response as well as CCA. Depending on the type of CCA project, government funding can be allocated from one of the following budget lines: environmental protection; economic affairs; scientific research; and development investment. According to the *Law on state budget 2015*, the state budget expenditure system in Vietnam is divided into two main expenditure categories: investment expenditure, funding infrastructure projects for example, administrated by the MPI; and recurrent expenditure, for funding for projects/activities/operation of state machinery and implementation of regular functional tasks of state agencies, which is administrated by the MOF. In the annual planning and budgeting of ministries, including the MONRE, there are usually activities funded from both recurrent and investment sources, therefore the ministries have to negotiate with both the MPI and MOF to secure their funds.

According to the INDC that Vietnam submitted to the UNFCCC, the demand for CCA funds is high in Vietnam, with the cost of adaptation estimated to exceed 3-5% of GDP by 2030. Past efforts by the MONRE and GoV to mobilise financial support have not been enough and state resources can only meet 30% of adaptation needs (MONRE, 2015a). One of the priorities is to continue to mobilise funds for CCA and diversify sources of funds, for example international financial mechanisms such as the GCF, bilateral and multilateral donors, enterprises, and communities. With respect to using funds from the SP-RCC for CCA, the MONRE has requested the MOF and MPI to allocate a higher proportion of the SP-RCC funds to climate change response activities.

Since the introduction of the *Law on public investment in 2014*, ministries and provinces have had to develop their 5-year public investment plans. Any CCA investment project, e.g. coastal mangrove forestation projects, and sea dyke building projects, must follow regulations on public investment management from planning to implementation. These regulations though do not directly relate to CCA policies but instead create the ‘environment’ in which CCA activities occur. CCA project-level activities have been regulated by broader institutional arrangements for public investment management. However, the ‘environment’ is not always enabling and instead can be a barrier to CCA projects implementation due to bureaucratic issues.

CCA policy implementers make decisions on investment based on the direction of higher level authorities rather than what they actually need to invest to address climate change impacts, as they depend on them for funds. There has been consistency in ‘hard’ adaptation of the GoV in its policy documents as well as directions of the Prime Minister since 2008. For example, the Prime Minister identified investment priority from the SP-RCC in the 2016-2020 as: protection and restoration of

coastal mangrove forests and watershed protection forests; building and upgrading freshwater reservoirs; consolidating and upgrading sea dikes and river dikes; combating flooding in cities; and implementing projects under the roadmap for COP 21 implementation (GoV, 2016c). Based on the Prime Minister's order, ministries and provinces work with the MPI and MOF to decide on specific CCA investments. This executive order of the Prime Minister (also the Chairman of the NCCC) directs investment from state budget and international ODA for CCA in provinces.

Funds for CCA policy-level actions and project-level activities are mostly transferred to implementers through the three national Programs and donors. At the local level, CCA activities are mainly funded from the central budget (Interviewee SN2). Ministries and localities have seen climate change as a source of funds. They only take actions on the (unstated) condition that budget is provided (Interviewees NS1, NS2). The top-down financial mechanism is therefore a root cause of the CCA implementation deficit.

Financing and investment mechanisms and procedures are critical for the implementation of particular projects. This has a significant impact on how public policies are implemented at national, sectoral and local levels. The implementation of CCA policy therefore depends largely on the availability of overall financing and investment guidelines which are mainly the functions of the MOF (recurrent expenditure) and the MPI (capital expenditure), rather than the MORNE, the lead climate change agency.

6.3.7. Monitoring and evaluation

The importance of M&E of the implementation of national CCA policy is stated in all climate change policy documents. Additionally, publically funded CCA projects have to comply with the current regulations on M&E of public investment. Within government, the higher authorities conduct M&E of the performance of lower level authorities. For example, the MONRE monitors the implementation of CCA policy and projects in the provinces. Government agencies with M&E mandates or designated M&E responsibilities can also conduct M&E on line agencies, e.g. the MPI can monitor and evaluate the investment expenditure of the MONRE. Another M&E approach is from outside the government system, the NA, VFF and mass organisations have a formal mandate to monitor and evaluate the implementation and compliance of CCA policy and legislation of government agencies at all levels.

At the project level, M&E is legalised in a number of laws and by-laws such as the governmental Decree 84/2015/NĐ-CP dated 30 September 2015 on M&E of investment projects, e.g. infrastructure developments funded from state budget; and Ministerial Circular 22/2015/TT-BKHĐT dated 18 December 2015 by the MPI that guides M&E reports. All investment projects funded from the state budget, including ODA projects, are obligated to conduct regular M&E. CCA related projects and especially 'hard' adaptation projects must comply with these general national M&E regulations. Public policy programs and projects within sectors also have to follow sectoral regulations. For

example, in the climate change sector, the MONRE may request implementing agencies to prepare reports beyond the normative ones regulated by the national laws and by-laws mentioned above. Donors also request fund receivers to regularly report implementation progress and difficulties. Usually ‘technical’ agencies (MONRE) collaborate with ‘financial’ agencies (MPI and MOF) to co-conduct fieldwork M&E.

As mentioned in section 6.3.5, the NA has authority to monitor the GoV’s execution. In 2015, the NA conducted M&E on the implementation of policies and legislation on climate change in the Mekong River Delta, which was followed by the introduction of the NA’s Resolution 853/NQ-UBTVQH13 dated 5 December 2014 on the results of M&E. The VFF also has a mandate for M&E of the GoV in exercising its functions and duties including climate change policy implementation. The VFF has signed an M&E plan with the MONRE for the 2017-2019 period. As the coordination agency of climate change administration, the MONRE has the authority and responsibility to conduct M&E field inspections. In July 2015, the MONRE in collaboration with the MPI and MOF carried out a M&E plan in eight provinces: Nam Dinh; Ninh Binh; Thanh Hoa; Quang Nam; Quang Ngai; Ben Tre; Tra Vinh; and Soc Trang (NTP-RCC Standing Office, 2015).

In 2013, the Minister of the MONRE ratified Decision 1788/QĐ-BTNMT promulgating a system of 15 indicators for M&E the implementation of the NTP-RCC in 2012-2015. Based on these indicators, the DMHCC (now DCC) took the lead role, collaborated with the Department of Planning (now DPF) to guide, oversee, and evaluate the implementation of the NTP-RCC. Line ministries, the people's committees of the provinces and centrally-run cities involved in implementing the NTP-RCC had to, annually or upon request of the MONRE, report their implementation progress against the set indicators. Implementers’ reports were then synthesised and submitted to the Prime Minister (MONRE, 2013). This is the bottom-up M&E mechanism.

The MONRE as a lead government agency often requests line ministries and provinces to report their progress in CCA policy implementation. Formally, the MONRE will issue an official letter, cite the reason for reporting and set a deadline for organisations to submit their reports. Although in almost all national climate change policy documents, programs and projects, there are provisions on regular reporting however, implementing agencies rarely proactively send reports of implementation progress to the MONRE and generally only take actions when being requested. For instance, in 2015, the Ministry sent Letter 3475/BTNMT-KTTVBĐKH to line ministries, 58 provinces and five centrally-run cities with requests for reporting the implementation progress of the NTP-RCC in the 2010-2015 period. Furthermore, in 2017, the Ministry circulated Letter 5509/BTNMT-KHTC to line ministries, provinces, and cities asking for information on the implementation of the Resolution 24-NQ/TW of the party. In such letters, the MONRE guided government agencies at central and local levels with respect to the key contents of their reports. Based on reports from ministries and localities, the

MONRE compiled, evaluated and then reported to the GoV and CPV with recommendations to address implementation deficits.

In respect of the NTP-RCC Program, M&E is regulated via Paragraph 3, Article 2 of the Decision 158/QĐ-TTg. The monitoring and evaluation of the implementation of the program's objectives are carried out at the national, sectoral and local levels (table 6.8). However, there are no indicators developed to guide M&E and these general statements lead to 'symbolic' reporting from implementing agencies.

Table 6.8: M&E responsibilities under the NTP-RCC 2008

Level	M&E responsibilities
District level	<p>The Division of Natural Resources and Environment (DIONRE) is responsible for collecting, synthesising, managing and storing information, preparing periodic reports.</p> <p>The District People's Committee periodically sends general reports to the program's standing bodies of province and centrally-run city.</p>
Provincial level	<p>The Department of Natural Resources and Environment (DONRE) is the standing body of the program, responsible for managing and storing relevant data and information; oversees and instructs district-level authorities to send periodical reports.</p> <p>The People's Committees of the province and centrally-run city synthesises information and sends periodic reports to the National Management Board.</p>
National level	<p>Ministries are responsible to report the implementation progress to the National Management Board.</p> <p>The National Management Board is responsible for managing and storing information reported by the provinces, centrally-run cities, and ministries; inspects and guides ministries, provinces, and centrally-run cities to send their reports on a regular basis; inspects data sources and reliability of data; The National Management Board prepares periodic reports to submit to the National Steering Committee, which then reports to the Prime Minister.</p>

Source: GoV (2008)

In the NTP-RCC 2012-2015 approved by the Prime Minister under Decision 1183/QĐ-TTg dated 30 August 2012, the program is monitored and evaluated according to the regulations on management and administration of the implementation of NTPs, regulations on public investment M&E, accounting and auditing regulations and other current legal regulations. It also states that the MONRE shall collaborate with line ministries and other central agencies to issue plans for M&E program implementation and to develop a set of indicators and evaluation criteria for implementation of the Program (GoV, 2012e). In the NCCS there is no designated section on M&E. However, the Prime Minister requested relevant agencies to be responsible for M&E. The M&E regulations in the NCCS 2011 are even vaguer than those in the NTP-RCC.

In practice the M&E of CCA policy implementation remains limited and symbolic (Interviewees SN2,

NS6, NS7, SN9). The M&E is also related to MRV adaptation, which is very difficult to implement (Interviewee SN3). Nevertheless, according to Ford et al. (2013), the ability to track CCA is hindered by the complex nature of adaptation and the absence of measurable indicators to judge if and how adaptation is occurring.

The M&E system for CCA in Vietnam is constrained by a lack of verifiable key performance indicators (KPIs) (MPI et al., 2015). In this regard, a university researcher suggested that evaluating the effectiveness of CCA or adaptation projects takes a relatively long time and the evaluation criteria remains unclear, as well as how to conduct M&E (Interviewee NS6). The problem of M&E was also emphasised by another non-government interviewee at national level:

I tell you that in Vietnam there is no monitoring and evaluation but reporting. Submitted reports if any rest in desk's drawers [not used]. There is no M&E [the respondent repeated with emphasis] (Interviewee NS7)

This absence of M&E CCA in Vietnam is in line with the situation in other developing countries, whereby M&E methods for adaptation remain in their infancy (Eakin & Patt, 2011; Preston, Westaway & Yuen, 2010; Mustelin et al., 2013). The situation in Vietnam is even worse due to the two 'nos', no M&E and no relevant data (Interviewee NS7). In respect of collecting data for M&E, interviewee NS7 continued:

The indicators used in M&E must reflect the characteristics of the implementation process. Indicators must be representative and secondly they must be feasible [measurable], which means they must be incorporated in the formal statistical indicators system of state statistics, if the proposed indicators are not in the formal statistical system then they are not usable. This is important.

M&E is critical to ensure effectiveness and efficiency of policy implementation, however in CCA policy implementation in Vietnam, there is a lack of systematic M&E. This problem was acknowledged by an official working for the MARD:

However, there is a flaw in these policy actions, that there is no M&E, this M&E system is very difficult to develop because it is not quantifiable but largely qualitative, whether this [climate change] policy will reach the general public or not is extremely difficult to assess (Interviewee SN9).

The absence of M&E was also noted by NGOs, as a representative from an NGO based in Hanoi commented "monitoring the implementation process is very difficult and that is almost undone" (Interviewee NS1).

The identification of indicators to monitor, evaluate and report CCA activities plays a critical role in

how CCA efforts are detected, quantified and reported. In 2015, the MPI cooperated with the WB and UNDP and carried out a project entitled “Climate public expenditure and investment review” (MPI et al. 2015). The project selected five ministries and three provinces to evaluate climate change expenditure. Using their own typology of climate change related projects, they found that the studied ministries and provinces allocated a significant share of their annual budget for climate change related activities. However, findings from the present research showed a contrary result. Reports from ministries, provinces and interviews of their officials as well as representatives from NGOs pointed out that not many climate change related activities have been implemented on the ground with the main reasons being a lack of funds and expertise. The contrary findings have resulted from the typology of CCA activities. The MPI, WB and UNDP used a bottom-up approach and identified all types of projects that related to climate change response, e.g. irrigation, dyke building and forestation, compiled and reported them. However, the interviewees and reports from ministries and provinces were based on a top-down perspective. They started with approved climate change policies, plans, and programs, e.g. action plans to respond to climate change, the NTP-RCC, and reported the number of proposed projects that got funded for implementation. The latter approach led to a more pessimistic result with respect to actual investment in CCA in Vietnam.

The above are M&E of CCA at the national level, at the international level, the National Communications that country parties submit to the UNFCCC are a reporting mechanism on the implementation progress of international climate change treaties. The PA encourages countries to develop National Communication on Adaptation, which has a transparent framework for actions taken and support received for these actions (UN, 2015). Accordingly, in the National Plan to implement the PA (Decision 2053/QĐ-TTg), the GoV assigned the MONRE to develop a framework on MRV adaptation (GoV, 2016b). However, there remains a lack of international and national guidelines on MRV adaptation (Interviewee SN3).

6.4. Chapter Summary

The key international climate change policy frameworks in relation to CCA, the UNFCCC and the PA, have been translated to national climate change policy frameworks for Vietnam. From 2008 to 2018, there were a number of policy documents being developed and adopted by the GoV such as the NTP-RCC in 2008, the NCCS in 2011, and party Resolution 24-NQ/TW in 2013. CCA is not concentrated in one single policy document but has become part of several general climate change policy documents. These are foundations for further policy-level actions and project-level activities implemented by public agencies with the involvement of non-state actors such as international donors, NGOs, universities and research institutes.

Policy implementation is the process of translating policy into actions (Hall, 2009). The ‘actions’ in practice can have several meanings. A climate change action plan may exist without any action taking place other than the creation of the plan to take action (Robinson & Gore, 2015). In the present

research, 'actions' are classified into two broad categories: policy-level actions; and project-level activities. Practice at the national level shows that the policy-level actions component of CCA policy implementation has been progressive, resulting in the current landscape of climate change policy with various plans at the national level. Project-level activities have been in place with different levels of performance among sectors and localities, although research suggests that few projects relating to climate change response have actually been funded and carried out 'on the ground' compared to the proposed projects identified in plans.

The GoV has been using the programmatic approach to implementing CCA policy. There were three national programs during 2008-2018: The NTP-RCC, the SP-RCC, and the Science and Technology Program for the NTP-RCC. The main contents of these national programs are specific projects to be implemented by relevant government and non-government agencies at national and local levels.

The main barriers to CCA policy implementation at the national level are poor collaboration between public agencies, inadequate funds, and the low coordination capacity (low political and financial powers) of the MORNE, the lead government agency for CCA governance. The realisation of CCA policy objectives is actually the implementation of public-funded and ODA projects by bodies within ministries at national level and local authorities.

In respect of institutional arrangements, the GoV assigned the climate change sector to the MORNE which was established in 2002. Traditionally, the MONRE is an environment ministry, working on nine sectors including climate change. Within the MONRE, a new department has been established to solely work on state management of climate change, the DCC (founded in 2017). The GoV also established a National Committee to coordinate climate change policy-making and implementation processes. This is significant because it is chaired by the Prime Minister.

International climate change policies and negotiations, together with internal drivers such as increasing climate change impacts and mobilising funds, have motivated Vietnam to enact a numbers of policies addressing climate change impacts. In Vietnam, as of late 2019 there is no policy document explicitly adopted for CCA, both mitigation and adaptation are usually mentioned in a climate change policy text. In respect of legislation for CCA, similar to China (He, 2013), there is no legislative or regulatory document in Vietnam that explicitly stipulates how CCA should be considered and implemented by organisations and individuals. CCA in Vietnam is more policy-oriented than legislation-oriented. However, there is evidence of interest in developing legislation-oriented climate change responses (Interviewees SN3, SP2, SP6, SD4).

Policy is often the output of 'muddling through' a catalogue of various problems, some of them climate change related, some of them not (Lindblom, cited in Urwin and Jordan (2008)). Although there are three policy documents regarded as CCA policy, they also cover some other related problems, e.g. disaster prevention, forest development and irrigation. Additionally, different policy

actors interpret the objectives and solutions of CCA policies differently. Consequently, there have been project-level activities that have little if nothing to do with climate change, especially ‘hard’ adaptation projects. It is not climate change impacts but something else that has driven authorities to approve CCA related projects. In Vietnam, the political authorities frame adaptation drawing on global climate change adaptation discourses that are associated with international funding flows (Lindegaard, 2018; Zink, 2013).

Shanks et al. (2004) found that policy implementation in Vietnam mainly relies on the capacity and legitimacy of provincial governments to adapt to national policies, which influence policy interpretation and outcomes on the ground. Additionally, given that climate change impacts manifest themselves at the local scale, adaptation would potentially be best implemented at this level (Rahman, 2017). This chapter reported the flow of climate change policies from international to national level, and the CCA policy-making and implementation processes at the national level (figure 6.9), the following chapter presents findings of the CCA implementation process at the local government level.

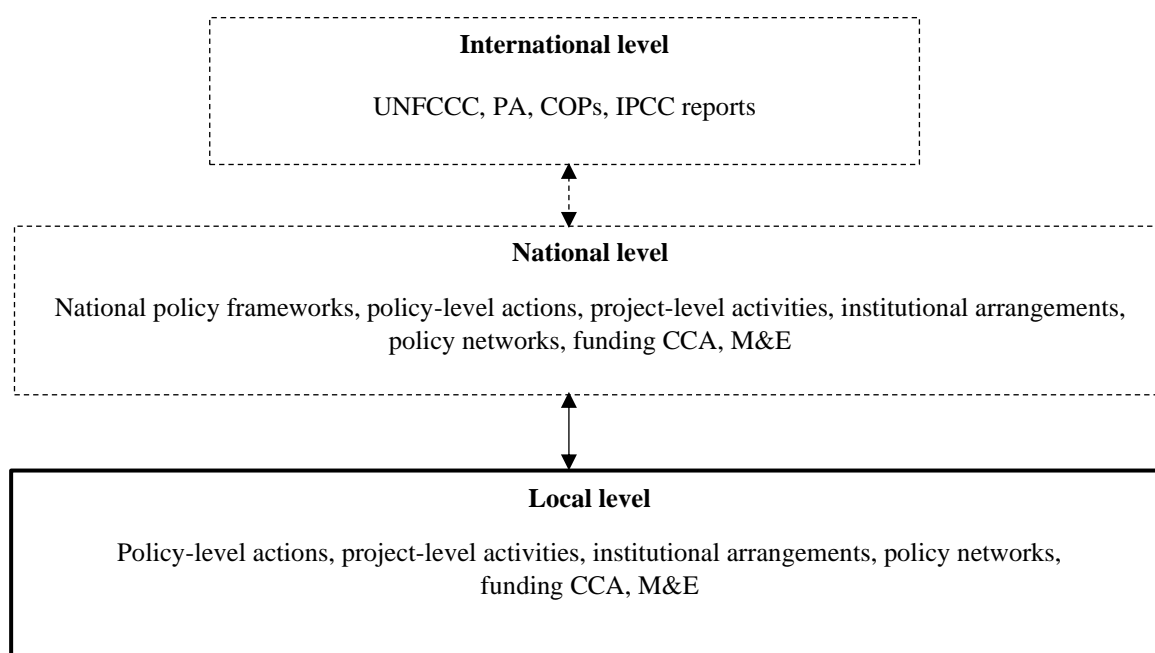


Figure 6.9: The vertical flow of CCA policy in Vietnam (source: Author)

CHAPTER 7: VERTICAL CLIMATE CHANGE ADAPTATION POLICY IMPLEMENTATION - LOCAL LEVEL

7.1. Introduction

This chapter presents findings on vertical climate change adaptation (CCA) policy implementation in Hai Phong city and Soc Trang province. The national CCA policies have been translated to local policies and specific activities. The ‘local’ in the context of Vietnam includes three administrative levels: provincial/municipal; district; and commune levels (figure 7.1).

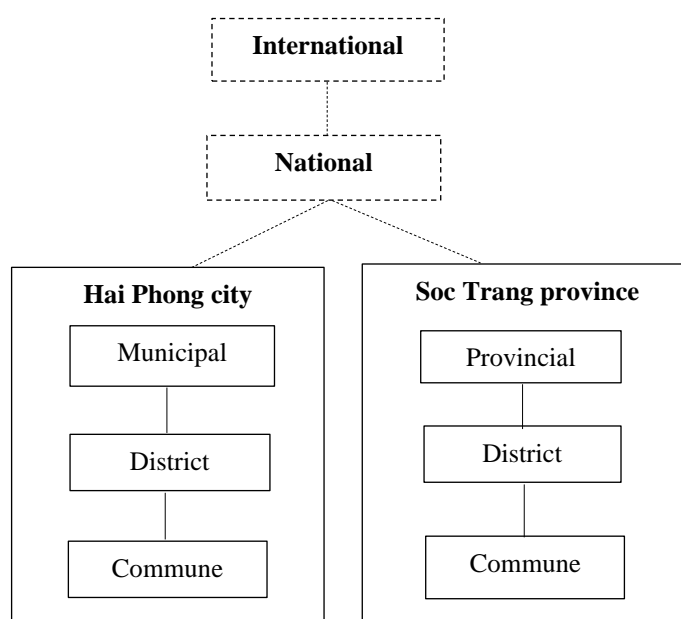


Figure 7.1: The vertical flow of CCA policy across multiple administrative levels in Vietnam
(source: Author)

The main themes in this chapter include policy-level actions, project-level activities, institutional arrangements, policy networks, financing CCA and reporting CCA implementation.

7.2. The City of Hai Phong

Hai Phong city is an administrative division directly under the control of the Government of Vietnam (GoV). The city’s authority has been implementing the CCA policies introduced by the national government and taking measures to address climate change impacts in the city. Several municipal plans have been developed, institutional arrangements for climate change administration have been established, and specific CCA related projects have been carried out by municipal departments and districts. Figure 7.2 shows the flow of CCA policy from international and national levels to the City of Hai Phong, lists of plans and projects are examples which were available during data collection.

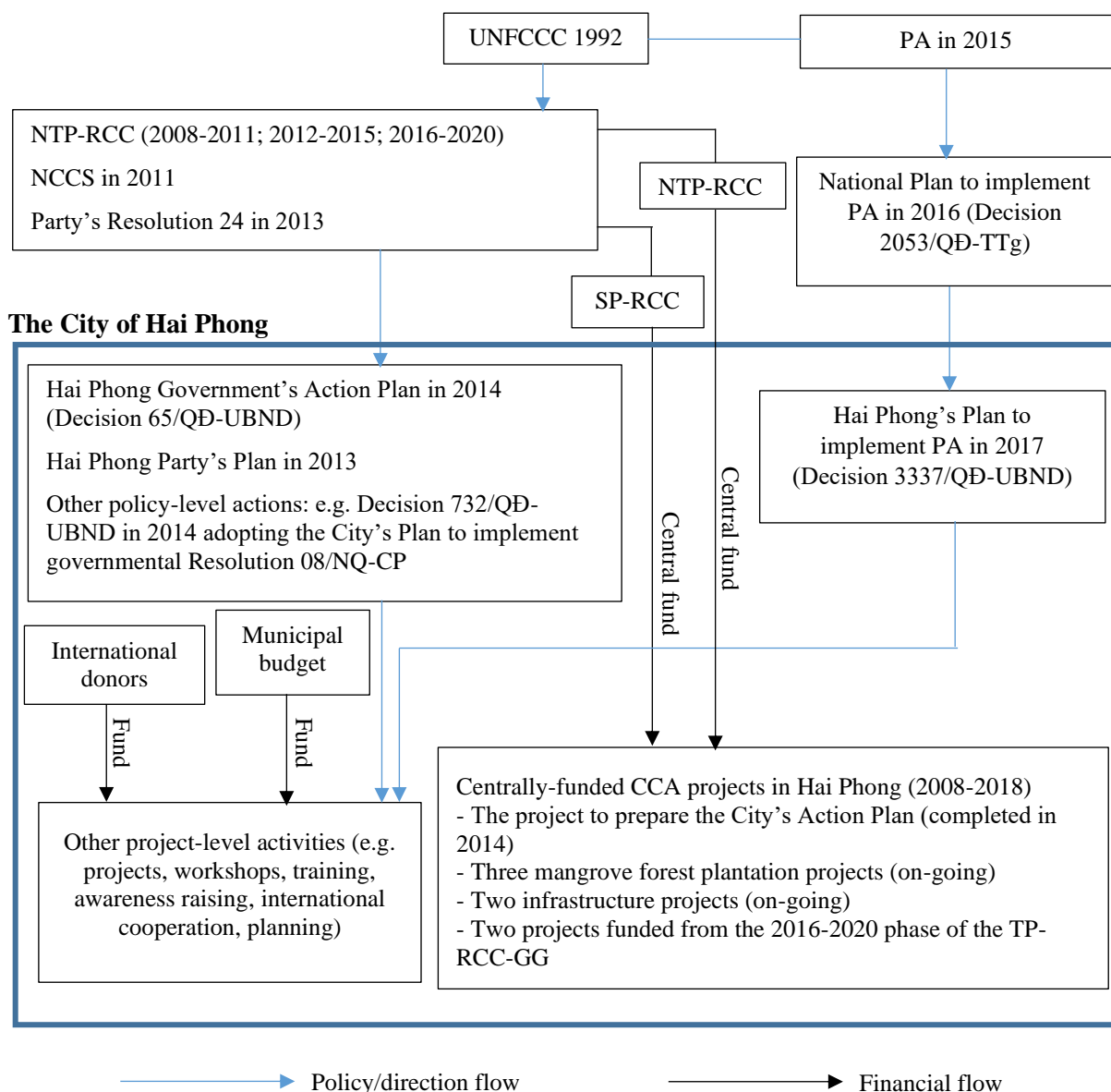


Figure 7.2: The flow of CCA policies from international and national level to Hai Phong city (source: Author)

7.2.1. Background information

Socio-economic and geographical conditions

Hai Phong is a coastal city with a 125 km long coastline located in the Red River Delta of northern Vietnam (see chapter five). The city is divided into 15 districts, which consist of 223 communes. The population of Hai Phong is 1,980,800, and the poverty rate is 2.1% compared to the overall poverty rate in Vietnam of 5.8%. The average income per capita per month is around USD 190 (VND 4,375,000), which is higher than the national average of USD 135 (VND 3,098,000) (Hai Phong Statistics Office, 2017; General Statistics Office of Vietnam, 2017a). Hai Phong city is one of the

leading localities in the socio-economic development among 28 coastal centrally run cities and provinces in Vietnam. According to the Hai Phong Statistics Office (2017), the main economic sectors which contribute to the city's GDP are agriculture, forestry and fishing (6%), industry and construction (62%), and services (32%).

Climate change impacts

Hai Phong is highly vulnerable to climate change impacts. Hanson et al. (2011) listed Hai Phong in the group of 20 cities around the world which are most vulnerable to coastal flooding due to sea-level rise and storm surge.

Interviews with Hai Phong government officials showed that climate change in Hai Phong city has been manifested through sea level rise and increasing temperatures (Interviewee SP2). In recent years there have been irregular and more intensive typhoons and flooding which has affected agricultural crops and people's health (Interviewee SP1). All interviewees in Hai Phong referred to climate change in relation to natural disasters. A senior government official working for the Ministry of Natural Resources and Environment (MONRE) stated that:

Their [local government officials] perception of climate change is mainly through natural disasters, they do not differentiate between the two, they think climate change is natural disasters because of its manifestations (Interviewee SN1).

The perception of Hai Phong government officials on climate change as disaster has led to 'hard' adaptation bias, as CCA measures mainly target disaster risk reduction (DRR) such as sea dyke building and coastal afforestation (see project-level activities below). In 2016, the MONRE published the climate change and sea level rise scenario for Vietnam, which included projections of impacts of sea level rise (table 7.1).

Table 7.1: Inundation by sea level rise in Hai Phong and the Red River Delta

Sea level rise	Inundation rate (% of total land area)	
	Hai Phong (154,052 ha)	Red River Delta (1,492,739 ha)
50 cm	5.14	6.93
60 cm	7.61	8.55
70 cm	11.70	10.40
80 cm	17.40	12.50
90 cm	24.00	14.70
100 cm	30.20	16.80

Source: MONRE (2016)

In response to both local climate change impacts and national climate change policies, Hai Phong has

been taking policy-level actions and project-level activities (figure 7.2), which are reported below.

7.2.2. Policy-level actions

The policy-level actions that Hai Phong took created the municipal CCA policy frameworks. National CCA policies have been transmitted to the city's CCA policies and plans. These actions are the intermediate step (see chapter four), which links initial national CCA policy intentions and concrete adaptation measures on the ground. They are desk-based works with outputs ranging from municipal-level plans to executive decisions or political directions that facilitate CCA activities in the city.

Municipal level

The Action Plan to respond to climate change and sea level rise in Hai Phong city towards 2025

This Action Plan was ratified in the Decision 65/QĐ-UBND dated 8 January 2014 by the Hai Phong Municipal People's Committee (Hai Phong MPC). It is the main policy document on climate change response (both adaptation and mitigation) in Hai Phong. The plan was developed and issued pursuant to the National Target Program to Respond to Climate Change (NTP-RCC) 2008, the National Climate Change Strategy (NCCS) 2011 and guidance by the MONRE in Letter 3815/BTNMT-KTTVBĐKH in 2009 (Hai Phong MPC, 2014).

The plan's objectives are to enhance the capacity to cope with climate change in Hai Phong city in the period 2014-2025, to prevent and reduce negative impacts of climate change, ensure sustainable development and protect people's lives. There are four groups of solutions identified to achieve these objectives: (1) actively responding to the impacts of climate change and sea level rise (consolidating river dykes, sea dykes, preventing saltwater intrusion, protecting coastal areas; ensuring agricultural production and protecting water resources); (2) strengthening management capacity on climate change (human resource development; facilitating the participation of all economic sectors, promoting the role of domestic socio-political-professional organisations and international organisations in responding to climate change; raising public awareness); (3) implementing scientific and technological activities to update and supplement assessments on impacts of climate change and sea level rise on socio-economic sectors and localities within Hai Phong city as a basis for mainstreaming climate change into development plans and proposing concrete solutions; (4) strengthening and implementing activities to reduce greenhouse gas (GHG) emissions (increase the absorption of GHGs; taking advantage of development opportunities brought about by climate change) (Hai Phong MPC, 2014). This plan is adaptation-biased, which is consistent with the main national climate change policies (the NTP-RCC, NCCS, and Party's Resolution 24).

The plan identifies 46 projects to be prepared and implemented by relevant agencies in Hai Phong city. The total estimated budget is about USD 210 million (VND 4,621 billion) to be sought from three sources: national budget through the NTP-RCC; mainstreaming into related programs and projects in

the city (national forestry and embankment programs); and financial support from international and domestic organisations.

The Hai Phong Department of Natural Resources and Environment (Hai Phong DONRE) is responsible for coordinating the implementation of the action plan. The Department of Agriculture and Rural Development (DARD) is assigned to deliver 14 out of 46 projects (30%), these are large scale infrastructure projects and the funds to be allocated to DARD is therefore considerable, amounting to around USD 115 million (VND 2,527 billion, 54% total budget of the whole plan). The budget share of DONRE, the lead agency of climate change administration, in comparison is minor at only USD 10 million (VND 220 billion, around 5% of plan's estimated budget). This highlights that the DARD is an important CCA policy implementer in Hai Phong city.

The municipal Party Action Plan to implement the central Party Resolution 24-NQ/TW

The Hai Phong Party Committee adopted the Plan 24-CTr/TU dated 29 October 2013 to implement the Resolution 24-NQ/TW issued by the Communist Party of Vietnam (CPV) in June 2013. This is a policy action taken by the party in Hai Phong city, which orientates and steers climate change response actions (taken by local governments) in the city. It is noticeable that in Hai Phong, the party took climate change policy action before the government (the municipal Action Plan mentioned above was adopted in January 2014). This is partly because of the supreme role of CPV and political decisions in statecraft in Vietnam (any directive from the central party is treated seriously by government agencies, the top-down information flow of the party/political system is much faster than that of the government/administrative channel), and partly because of the reaction of Hai Phong authority (Soc Trang introduced its Action Plan in 2011, see section 7.3.2). The Municipal Party Plan's objectives have been elaborated from the objectives of the Resolution 24-NQ/TW by the CPV with changes made to accommodate local conditions. In the plan, the Municipal Party Committee requests the lower level Party Committees (district and commune - party apparatuses) and the municipal People's Committee (government) to develop, adopt and implement their own plans.

This plan is relatively specific, listing 52 projects to be assigned to relevant government agencies in Hai Phong. Usually a party policy (political decision) states general orientations to address public issues, these orientations are then elaborated in follow-up governmental policies through specific objectives, solutions and tasks. With such a level of detail, the party is substantially involved in the government's work.

The overlap in public management processes between the party and the government in Vietnam is profound (Shanks et al., 2004). The party's doctrine states that the party 'leads' and the government 'manages', but in practice the party often controls and intervenes in the 'management' process. The party has direct and indirect involvement in the activities of government agencies. In the case of the Plan 24-CTr/TU, the Hai Phong party directly assigned tasks to Hai Phong's departmental agencies. In

essence, at the time the party plan was introduced, there was no government climate change plan in effect, therefore the party had to identify specific tasks to be assigned to government agencies. Additionally though the party and the government are two separate systems in Vietnam, the former often uses the latter's apparatuses and personnel to assist its policy-making process (as chapter six noted, the Central Party Resolution 24-NQ-TW was drafted by the MONRE, a GoV agency). Therefore, it is not clear in party decisions as to whose idea counts as the contents of the party's plan might carry the intentions of the municipal government. The role of this plan was highlighted by a municipal official: the party's resolution is the direction, based on which the government develops plans and adopts decisions to properly implement the party's steering (Interviewee SP1).

The Municipal Government Plan to implement the Plan 24-CTr/TU by the Municipal Party Committee

This plan was adopted under the Decision 732/QĐ-UBND dated 4 April 2014 by the Hai Phong MPC. The Hai Phong MPC (government) took this policy action pursuant to the Plan 24-CTr/TU by the Municipal Party Committee dated 29 October 2013 above (party) and the Resolution 08/NQ-CP dated 23 January 2014 by the GoV (section 6.3.2). Therefore, the main purpose of this plan is elaboration of these two policy documents. There are seven measures identified in the Plan: education and awareness raising on proactive climate change response; facilitating scientific and technological research and development in climate change response; enhancing management capacity; developing climate change financial mechanism; enhancing international cooperation; GHG emissions reduction, carbon sink, taking advantage of opportunities from climate change; and infrastructure development for proactive response to climate change and sea level rise, salinity prevention and coastal protection. There are 52 specific projects identified in this Plan, in which five projects assigned to municipal state-owned enterprises (SOEs). The authorities in Hai Phong planned to directly fund SOEs to implement climate change policy. The list of those 52 projects is very similar to the list identified in the Municipal Party Action Plan mentioned above. That is to say, the municipal government 'copied and pasted' the Municipal Party's Plan.

The City's Action Plan to implement the Paris Agreement (PA)

In accordance to the Decision 2053/QĐ-TTg dated 28 October 2016 by the Prime Minister adopting the national plan to implement the PA, the Hai Phong MPC adopted its plan to implement the PA under Decision 3337/QĐ-UBND dated 6 December 2017. The overall objective of the city's plan is to determine and implement appropriate actions and solutions by 2020 and 2030 in Hai Phong city to gradually perform all tasks under Decision 2053/QĐ-TTg of the Prime Minister, contributing to the implementation of the provisions of the PA applicable to Vietnam. The plan identifies 19 general tasks in relation to CCA from 2016 to 2030 (e.g. implementation of the national Target Program to Respond to Climate Change and Green Growth (TP-RCC-GG) 2016-2020, sustainable forest management and integrated water management). The city's government requested members of the Municipal Climate Change Committee to facilitate and monitor the implementation of the plan, and DONRE is the focal

point in coordinating the implementation of the plan. The Department of Planning and Investment (DPI) and the Department of Finance (DOF) annually advise the Hai Phong MPC to balance funds from the central and local budgets to implement the Plan (Hai Phong MPC, 2017a).

The above are plans made at the municipal level and take effect in the entire city's 15 districts and 223 communes (Hai Phong Statistics Office, 2017). However, district authorities have also developed their plans in accordance to the direction of the municipal authority and ideally, to deal with climate change impacts on the ground. A district plan is more in the form of an administrative document which translates municipal directives to the works of agencies within the district's administration. The next section elaborates on the plans developed in Do Son, one of the 15 districts in Hai Phong city.

District level

The Do Son district Party Action Plan to implement Resolution 24-NQ/TW

The Do Son District Party Committee issued Plan 60-KH/QU dated 29 October 2013 to implement the Resolution 24-NQ/TW. This plan was developed and issued pursuant to the Action Plan 24-CTr/TU dated 29 October 2013 by the Hai Phong MPC, which was previously developed and issued pursuant to the Resolution 24-NQ/TW by the Party Central Committee. This is how the party's climate change policy has been transferred from the national to municipal, and then district level.

Its overall objective by 2020 is to proactively adapt to climate change, prevent disaster and reduce GHG emissions; and, by 2050, to proactively respond to climate change ('respond' includes 'adapt' and 'mitigate'). The specific objectives are to: strengthen understanding of the role of the grass-roots level in climate change response in developing socio-economic and sectoral plans in the district; build information and disaster warning systems and monitor climate change; form a sense of proactive disaster prevention and adaptation to climate change for each member of the society; gradually reduce the damage caused to population and assets by disasters; enhance the capacity to prevent and minimise the impacts of disasters; manage, exploit and proper use of natural resources; ensure ecological balance; preserve and develop protective forests along the sea dykes I and sea dykes II in Ngoc Xuyen, Ngoc Hai, Bang La and Van Huong communes; and actively prevent and control the impacts of tidal surges, floods and salinity intrusion due to sea level rise in the coastal areas, especially for agricultural production land. Based on those objectives, some solutions were identified such as leadership improvement, raising awareness, facilitating research, enhancing state management and mobilising capital (Do Son Party Committee, 2013).

The wording of the party climate change policy was not changed much from the central to provincial and district levels. The district authority has limited research capacity, however, one of the solutions that Do Son district identified is to facilitate research, which is not realistic in the district. This potentially makes the policy action taken by the District Party Committee merely a symbolic exercise.

The District Party's Plan requested the District People's Committee to develop its action plan, which was accomplished in 2014 as below.

Plan to proactively respond to climate change in Do Son district in the 2014-2020 period

Pursuant to Decision 732/QĐ-UBND of the Hai Phong MPC, Action Plan 24-CTr/TU of Hai Phong MPC, and Plan 60-KH/QU of the Do Son District Party's Committee, the Do Son People's Committee issued Plan 141/KH-UBND dated 13 August 2014 to proactively respond to climate change in Do Son district from 2014 to 2020.

The Plan 141 of the Do Son authority identifies the purposes, requirements, key tasks, and assignments to relevant functional divisions and communes in the District, e.g. Division of Natural Resources and Environment (DIONRE), Division of Urban Management, Division of Economic Affairs, Division of Finance - Planning. The District Fatherland Front and mass organisations, e.g. Women's Association and Youth Union, are also requested to participate in implementing the plan. Divisions, commune people's committees and relevant organisations have to report implementation results to the District People's Committee which then circulates the information to the higher level authority, the Hai Phong MPC.

Many of Plan 141's contents are about environmental protection. It does not include any specific projects. In this regard, the district level climate change plan is different from the provincial/municipal level action plans as well as the national action plans and is an administrative document rather than a plan. The reasons could be that the district level government did not have the competency to prepare project documents and/or lack of funding available for climate change projects in the district budget. At the time this research was conducted there was no assessment of climate change impacts in Do Son, the plan made therefore, was not based on actual climate change impacts on the ground but orders from higher level authorities.

Commune level

There was no policy-level action at commune level, though the district's plan requested the commune authorities within Do Son, to develop their plans. The policy-level actions (planning) should only be conducted at national and provincial levels and the district and commune authorities have limited capacity to develop their own plans. Additionally, in principle, the last two government levels have to implement plans adopted by the provincial and national levels (Interviewee SN1). Another reason given for the lack of necessity for commune plans is about the scale aspect of climate change impacts which are regarded as affecting a large region rather than a single commune (Interviewee SN2).

7.2.3. Project-level activities

As discussed in chapter four, the project-level activities are concrete measures that turn policy

intentions into practices - actual outcomes on the ground. As Rahman and Tosun (2018, p.837) observed, “[t]he implementation and management of climate change adaptation policies take place by means of specific projects”.

In the main climate change policy document, the action plan to respond to climate change and sea level rise in Hai Phong city towards 2025 (Plan 65), the Hai Phong authority identified four groups of solutions with 46 specific projects to be implemented (table 7.2), of which the infrastructure or ‘hard’ adaptation projects occupy most of the budget estimates (Hai Phong MPC, 2014). According to a government official working for DONRE in Hai Phong, the City policy-makers prefer ‘hard’ to ‘soft’ adaptation, and noted: Our leaders just want to ask for a VND 1000-billion dyke building project rather than afforestation (Interviewee SP2). Additionally, the outcomes of infrastructural projects are visible while those of non-infrastructural projects are difficult to see and evaluate (Interviewee SP1).

Table 7.2: List of 46 *planned* projects during the 2012-2025 period

No.	Solution	Number of projects
Group 1	Actively responding to the impacts of climate change and sea level rise; strengthening river dykes, sea dykes, preventing saline intrusion and protecting coastal areas; ensuring agricultural production and protect water resources.	29 projects
Group 2	Strengthening management capacity on climate change; human resource development; mobilising the participation of all economic sectors, promoting the role of domestic socio-political-professional organisations and foreign organisations in responding to climate change; raising public awareness.	6 projects
Group 3	Implementing science and technology activities to update and supplement assessments on impacts of climate change and sea level rise on industries, fields and areas in Hai Phong city, as a basis for integrating the contents of climate change into socio-economic development plans and proposing specific solutions.	6 projects
Group 4	Strengthening and implementing activities to reduce GHG emissions, increasing the ability to absorb GHGs, and take advantage of development opportunities brought about by climate change.	5 projects (mitigation)

Source: Hai Phong MPC (2014)

According to project management regulations, there are three categories of projects depending on their sources of state funds: (1) investment projects (capital expenditure); (2) functional projects (recurrent expenditure); and (3) research projects (recurrent expenditure). The first type mostly consists of infrastructure investment projects and afforestation projects. The infrastructure investment projects are seen as ‘hard’ adaptation though the term ‘climate change’ might not appear in project documents. None of the 16 ‘hard’ adaptation projects in the Climate Change Action Plan of Hai Phong city has the term ‘climate change’ in its title, whereas most of the projects funded from the recurrent expenditure have ‘climate change’ in their titles. Commenting on the preference of proposing infrastructural projects in local climate change action plans, Nguyen et al. (2017, p.108) stated that “adaptation

policies need to be more than a rebadged shopping list of engineering projects”. There could be no, or little, relevance to CCA in the contents of those priority projects which were rebadged with climate change labels by local authorities. Though the Hai Phong authority called the 16 planned engineering projects CCA projects, the term ‘CCA *related* projects’ seems more relevant.

The CCA related investments projects were assigned to the DARD and district authorities, not to DONRE the lead agency of climate change administration in Hai Phong. DONRE is only authorised to carry out functional and research projects. The main reason for this is that climate change affects economic sectors and local areas, especially climate sensitive ones such as agriculture and coastal zones, therefore most CCA investments have been allocated to DARD and coastal districts to address climate change threats in their sector and localities. DONRE is mandated with state management of CCA such as planning, coordinating and reporting CCA efforts in Hai Phong city, rather than delivering projects on the ground (Interviewee SP1).

In Decision 3337/QĐ-UBND dated 6 December 2017, the Hai Phong authority claimed that 32 out of 46 projects have been implemented (Hai Phong MPC, 2017a). However, as previously mentioned, not all 46 projects may be fully relevant to CCA, especially the 16 infrastructural projects which focus on DRR (these projects would still be invested in without climate change, but since there are funds available from climate change programs, such projects have been directed to seek funds from climate change sources). A senior government official working for the MONRE stated that many provinces have not fully understood climate change, they simply think flooding can be solved by sea dykes, their climate change action plan is about reducing flood exposure, this has led to infrastructure projects with total investments amounting to trillions of VND, not only for dyke building but also urban regeneration which has little or nothing to do with climate change (Interviewee SN3).

Under the framework of the NTP-RCC from 2008 to 2015, and the TP-RCC-GG from 2016-2020 (note that the NTP-RCC changed its name to TP-RCC-GG in the 2016-2020 period), and the SP-RCC from 2009, Hai Phong has been funded eight projects from the central budget. Additionally, the city also allocated funds from its own budget to implement two projects (table 7.3). They are projects within the vertical implementation dimension since they used funds from the climate change programs or are designed to realise climate change response objectives mentioned in climate change policies. As mentioned above, investment projects using climate change funds (SP-RCC) might have little to do with CCA. For example, a project for the construction of a ring road in the southeast of Hai An district, from Cau Rao bridge to the intersection with the Hanoi-Hai Phong highway (no. 3 in table 7.3) had been initially designed without sourcing investment from climate change programs. However, the Prime Minister agreed to allocate part of its cost from the SP-RCC (Interviewee SP1). This means the original project was merely about transportation and dyke building, not adaptation to climate change impacts. Nevertheless, the Hai Phong authority made use of climate change funds to implement this project. It appears that local officials often look at central funding as a way to develop

their own projects rather than those intended for the ‘greater good’.

Table 7.3: List of *actual* CCA projects in Hai Phong city (2008-2018)

No.	Project title	Project implementation management agency	Specific source of fund
<i>Central budget</i>			
1	Preparation of the Climate Change Action Plan of Hai Phong city	DONRE	NTP-RCC
2	Construction of freshwater reservoir and irrigation systems for fresh water supply for Bach Long Vy island - Phase 1.	Youth Volunteers Board in Hai Phong city	SP-RCC
3	Construction of a ring road in the southeast of Hai An district, from Cau Rao bridge to the intersection with the Hanoi-Hai Phong highway.	Hai An District People’s Committee	SP-RCC
4	Stabilising tidal flats and plantation of mangrove trees to protect the sea dyke I.	DARD	SP-RCC
5	Restoration and development of coastal and riverine protective forests in Hai Phong city in the 2015-2020 period.	DARD	SP-RCC
6	Plantation of protective forests to cover the bare land and hills, and to adapt to climate change in Bach Long Vy district.	Bach Long Vy district People’s Committee	SP-RCC
7	Updating the climate change Action Plan of Hai Phong city.	DONRE	TP-RCC-GG
8	Assessment of Hai Phong’s climate.	DONRE	TP-RCC-GG
<i>Local budget</i>			
1	Raising awareness about climate change response for departments, agencies, unions and localities in Hai Phong city.	DONRE	
2	Developing a database system of meteorology, hydrology (MH) and climate change monitoring in Hai Phong city.	DONRE	

Source: Interviews, Hai Phong DONRE (2015), and Hai Phong MPC (2017a)

There are two CCA related projects being implemented by district authorities (in Hai An and Bach Long Vy districts, and none in Do Son district which is studied here), eight projects have been implemented by municipal-level agencies, while the lowest government level, the commune authority, has not been authorised to implement any climate change projects. In fact, the commune level is only involved in some specific activities within projects implemented by higher-level authorities. These activities were awareness raising, training workshops, and mangrove planting (Interviewees SC2, SC1).

In addition to state-funded project-level activities, Hai Phong city has received financial support from international donors (mostly non-governmental organisations (NGOs)) to carry out CCA related activities. According to the Report 208/BC-STNMT dated 21 October 2015 that Hai Phong submitted

to the MONRE, from 2009 to 2014 Hai Phong received 13 projects funded by international NGOs amounting to USD 5,328,195. These projects focused on climate change response and DRR. Some of the NGOs that funded CCA related projects in Hai Phong are the Japanese Red Cross, Global Environment Facility, Stockholm University (Sweden), and Action Aids International (Hai Phong DONRE, 2015).

In respect to CCA project-level activities in Do Son district and two communes (Ngoc Hai and Bang La) which were under investigation, there were no CCA related projects funded from national climate change programs, international donors or the municipal budget directly allocated by Do Son, Bang La or Ngoc Hai. According to an official working for the DIONRE of Do Son, the NTP-RCC has not actually been implemented in localities (Interviewee SD1).

The main barriers to policy-level activities in Hai Phong city as well as Do Son district are financial and human resources (Interviewees SP1, SC1). Additionally, the municipal government has not decentralised project management and implementation to district authorities. Document review and interviews showed that most climate change related activities are ‘owned’ by municipal-level agencies (e.g. DARD) (Hai Phong MPC, 2014; Hai Phong DONRE, 2015; interviewee SD1). The districts and communes have not been appropriately included in the CCA policy implementation process although they directly experience the adverse impacts of climate change.

Due to the government officials’ perception of climate change as disaster, CCA has mainly focused on DRR. CCA measures in Hai Phong are about adapting to natural variability (adapting to what we have always adapted to) rather than adapting to projected anthropogenic climate change (adapting to what might occur) (Dupuis & Biesbroek, 2013). This is perhaps understandable since DRR is more urgent than dealing with long-term impacts of climate change especially given that Hai Phong is located in a prone-disaster region, and the state budget is tight, therefore investment must be based on priorities. CCA and DRR are inseparable in practice though and in policy terms they are derived from two separate policy frameworks (the Sendai Framework and UNFCCC), from international to national, and local levels (see also chapter eight). CCAs on the ground in Hai Phong are mangrove afforestation and sea dyke building/upgrading which has been argued to help address risks of climate related disasters and risks from future climate changes.

7.2.4. Institutional arrangements

In terms of the institutional arrangements for vertical CCA policy implementation in Hai Phong city there are administrative agencies, some with designated functions and duties on climate change governance including CCA, and other organisations that have general roles in facilitating public policy implementation including climate change (figure 7.3). These are discussed in more detail below.

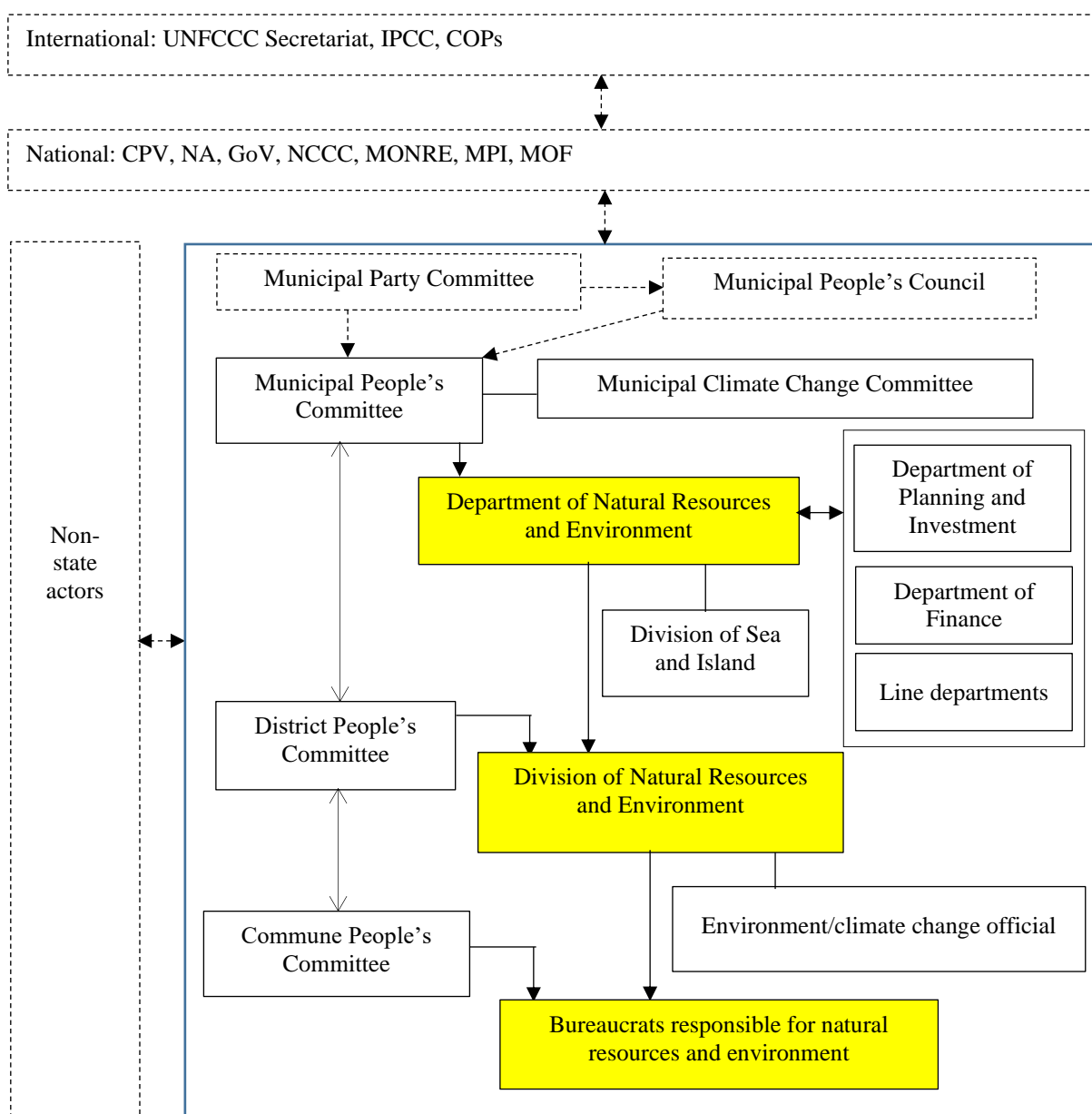


Figure 7.3: Key state actors involved in vertical CCA policy implementation in Hai Phong city
(source: Author)

Policy actors

Municipal People's Committee

The Hai Phong MPC is the highest-level executive body in the city. Most climate change related plans and all projects mentioned above were approved by the Hai Phong MPC. The committee has some functional departments assisting in sectoral administration within the city such as the DARD, Department of Planning and Investment (DPI), and DONRE. The structure of the national government

is mirrored at the municipal level. All ministries at national level have their affiliations at the municipal level. For example, the MONRE has its affiliation as the DONRE. DONRE is organised in all 63 provinces and cities. The DONRE operates and performs work under direct leadership of the Hai Phong MPC (including staffing), with technical instruction from the MONRE.

Department of Natural Resources and Environment of Hai Phong (Hai Phong DONRE)

The Hai Phong MPC established and mandated the Hai Phong DONRE as having the leading role in climate change administration within the city. DONRE's specific functions, duties, powers and organisational structure are stipulated in Decision 1117/QĐ-UBND dated 22 May 2015 by the Hai Phong MPC. In respect of CCA, the decision assigned to DONRE is to:

Develop, update the City's action plan to respond to climate change; guide and coordinate implementation;

Implement national climate change strategies, programs, plans, projects; monitor the implementation of the objectives identified in the City's climate change programs, plans and projects;

Monitor, assess impacts of climate change on natural environment, residents, and socio-economic development; propose response measures (Hai Phong MPC, 2015c; author's translation).

Within Hai Phong DONRE, the responsibility to administer climate change is delegated to the Division of Sea and Island (DSI). This institutional arrangement varies across 63 municipal and provincial DONREs though the national government issued a guideline on organisational structure of DONREs in localities. The guideline was issued under the joint Circular 50/2014/TTLT-BTNMT-BNV dated 28 August 2014 between the MONRE and the Ministry of Home Affairs. This established the Division of Meteorology, Hydrology and Climate Change in local DONREs however, both Hai Phong city and Soc Trang province did not strictly follow this guideline from the central authority.

The DSI has been mandated to administer three sectors: coastal management, hydrology and meteorology (HM), and climate change. Most of its regular duties are on coastal management (Hai Phong DONRE, 2015). There are 14 officials working in this division, of which three are responsible for HM and climate change (Interviewee SP1).

Hai Phong's Climate Change Committee

The Climate Change Steering Committee in Hai Phong city was established under Decision 1671/QĐ-UBND dated 5 May 2012 by the Hai Phong MPC. The Climate Change Committee has 20 members headed by a Vice Chairman of the Hai Phong MPC; the Committee's Vice Chairman is the Director of DONRE; and members are representatives from relevant line departments in the city. There is no

representative from the 15 districts within the city, which is different to the committee in Soc Trang province (see below). Of the 20 members, 18 are from government agencies, one from the Municipal Union of Science and Technology Associations (a network of non-governmental science and technology organisations in Hai Phong city), and another from the Municipal Fatherland Front (a party apparatus, which supervises the Hai Phong government's duties and performance and provides social criticism on public policy formulation and implementation).

The Steering Committee was assigned to advise and assist the Hai Phong MPC in steering, coordinating, carrying out programs, projects and activities relating to the Action Plan to respond to climate change in the City. This committee was founded in October 2012 however, the climate change Action Plan in Hai Phong was issued in January 2014 (in contrast, Soc Trang's Action Plan had been approved before the establishment of the provincial Steering Committee).

The establishment of climate change steering committees in provinces and cities was regulated in the NTP-RCC in 2008. However, the operation of the Climate Change Committee is symbolic as there was no annual budget allocated for its operation (Interviewee SN10). The committee in Hai Phong has been updated three times due to changes in members of key municipal agencies (in 2014, 2016, and 2017). Although there has not been any meeting of the committee since its establishment in 2012 (Interviewee SP2). The committee's establishment is therefore a response to the top-down mandate rather than local need.

Line departments: Planning and Investment, Finance, and Agriculture and Rural Development

The duties of functional departments in provincial/municipal governments are similar to the duties of their respective functional ministries in the central government. Therefore, the DPI in Hai Phong is responsible for managing public investment expenditure within Hai Phong city, and guiding mainstreaming climate change considerations into socio-economic development plans within the city. The DOF is in charge of recurrent expenditure, which are funds for functional projects such as raising awareness of the city's bureaucrats on climate change or conducting climate assessment in the city. All ten CCA related projects in Hai Phong (section 7.2.3) were appraised by the DPI and DOF then submitted to the Hai Phong MPC for approval before relevant agencies could be allocated funds for implementation. The DPI and DOF collaborate with DONRE to monitor, evaluate and report the progress of climate change related projects in the City.

The DARD is the main CCA related projects implementer. Climate change is framed as disaster by Hai Phong's government officials therefore CCA measures focus on DRR which is under the administration of the DARD (irrigation, sea and riverine dyke systems and coastal forests).

Do Son Division of Natural Resources and Environment

Do Son is one of the 15 districts in Hai Phong city. This coastal district was selected for further

investigation of CCA policy implementation in Hai Phong. Similar to the municipal authority, the Do Son district authority consists of functional divisions including the DIONRE.

The Division's functions, duties, powers and organisational structure are stipulated in Decision 244/QĐ-UBND dated 29 April 2008 and Decision 1347/QĐ-UBND dated 15 September 2016 by the Do Son District People's Committee. Accordingly, the Do Son DIONRE is a district-level division, performing state management over six sectors: land; water resources; mineral resources; environment; climate change; and sea and island.

Paragraph 10, Article 2 of the Decision 1347/QĐ-UBND briefly states the Division's duties and powers in relation to climate change, as implementing the action plan to respond to climate change, and participating in updating the action plan to respond to climate change in the district (Do Son District People's Committee, 2016).

DIONRE has only six officials including two leaders and four staff, of which one is responsible for climate change related activities in the district. This official is tasked with environment and climate change sectors. Climate change has been stipulated in the official's job description (Interviewees SD1, SD3). At district level, climate change has been mandated to DIONRE and its officials.

Commune People's Committees

There is no functional body established at the lowest government level in Vietnam, but individual cadres are responsible for state management of public sectors. In respect to the natural resources and environment (NRE) sector, there is one bureaucrat in each commune (Ngoc Hai and Bang La) with the main focus on land use management and environmental protection. Climate change is a new issue for commune authorities. As noted above, most of CCA policy-level actions and project-level activities are directly implemented by municipal-level authorities. Climate change administration is currently not included in the job description of communal cadres (Interviewee SC1). This means that climate change is not a regular work of the bureaucracy and bureaucrats at the commune level. Institutional arrangements for CCA policy implementation stop at the district level.

Policy actors' interaction

This section is about the 'rules of the game' which glue state actors in CCA policy implementation. State agencies in Hai Phong city such as DONRE, DARD, DPI, DOF, and district authorities have to cooperate in implementing CCA policy-level actions and project-level activities. This cooperation responsibility is stated in their designated functions and duties, and is part of the formal institutional arrangements for state management of public issues in the city.

The Climate Change Steering Committee of Hai Phong city consists of members who are leaders of relevant municipal departments, therefore these departments have to work together to address tasks of

the Committee, which are in fact tasks of department's leaders who have to use their organisations and staff to perform their work. In December 2017, the Head of the Climate Change Committee issued the working regulation of the Committee (Decision 3652/QĐ-UBND). The regulation specifically regulates the duties of the Head of the Committee (also a Vice Chairman of the Hai Phong MPC), Deputy Head of the Committee (also a Deputy Director of Hai Phong DONRE), and members who represent line departments, (the DPI and DOF are assigned to advise the committee on investment and financial issues for implementation of the climate change Action Plan in the City). The Committee was founded in 2012 but its working regulation was only approved in 2017. This implies that the Committee did not operate or it did so without a formal working mechanism from 2012-2017.

In October 2015, the Hai Phong government issued Decision 2445/2015/QĐ-UBND ratifying the collaboration regulation on implementing climate change investment projects in Hai Phong city. This is a legal document issued by the Hai Phong authority (strictly complied by stakeholders). Three key municipal departments mentioned in the regulation are: DONRE (technical dimension of CCA including policy); the DOF (financial dimension of CCA, focusing of spending norms and regulations); and the DPI (investments for infrastructure projects and afforestation projects). The regulation also stipulates the management procedures of climate change related projects from proposal, to project document preparation, appraisal, and approval by decision-makers (usually the Chairman of the Hai Phong MPC) (Hai Phong MPC, 2015a).

Formal government agencies at all levels only take actions according to their mandates or 'orders' from higher-level authorities. For example, after the Prime Minister ratified the national plan to implement the PA in Decision 2053/QĐ-TTg dated 28 October 2016, the Hai Phong MPC issued Letter 5681/UBND-MT dated 6 September 2017, requesting DONRE develop the city's plan to implement the national plan. Taking this 'order', DONRE submitted the plan to the Hai Phong MPC for approval. The plan was then adopted under Decision 3337/QĐ-UBND dated 6 December 2017 of the Hai Phong MPC. The city might not have taken this planning action without the request of central government. The top-down working mechanism (hierarchical governance mode) among state agencies remains prevalent in contemporary Vietnam.

7.2.5. Policy networks

There have been state actors and non-state actors involved in CCA policy implementation in Hai Phong city, figure 7.4 highlights the complexity of key actors. The Hai Phong MPC and its DONRE are the central actors in the local CCA policy networks.

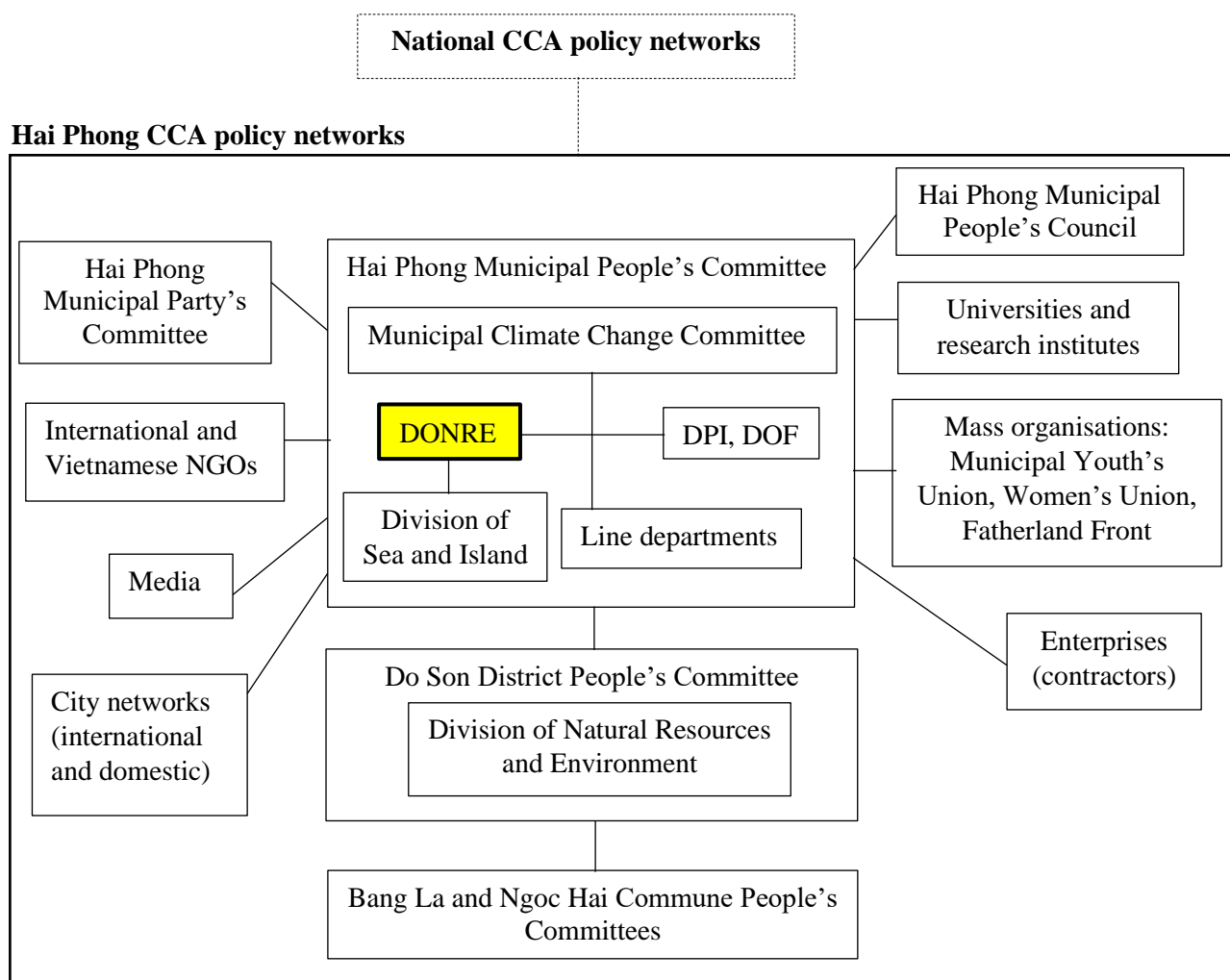


Figure 7.4: Hai Phong CCA policy networks (source: Author)

Policy networks are formed through the participation of policy actors sharing common goals or interests (Howlett & Ramesh, 2003; Nguyen, 2017). The CCA policy networks are broader than the group of municipal executive and functional agencies mentioned in section 7.2.4. In addition to government agencies, networks consist of international partners such as Japanese cities (city-to-city cooperation), international NGOs, universities, and mass organisations. The identification of actors in the Hai Phong CCA policy networks are based on: (1) formal decisions mandating duties of organisations in climate change administration in the city (e.g. Decision 65/QĐ-UBND in 2014 issued the climate change Action Plan, which listed out responsibilities of relevant agencies); (2) reports that Hai Phong submitted to the MONRE (e.g. Report 208/BC-BTNMT in 2015 in which DONRE mentioned some international NGOs); (3) interviews with officials; and (4) and the news on websites of Hai Phong authorities (e.g. Hai Phong was chosen by the World Bank (WB) as a city participating in a regional climate change project (Anh, 2018).

Since 2009, international and Vietnamese NGOs have been involved in CCA policy implementation in

Hai Phong through related projects. They include the Japanese Red Cross Society, Save the Children, Action Aids International, Centre for Marinelife Conservation and Community Development (MCD), World Vision, and Peace Winds America (Hai Phong DONRE, 2015). These NGOs focused on building capacity for coastal communities and are concerned with residents and households which are directly affected by climate change impacts (Interviewee SP1). Hai Phong city has also cooperated with Kitakyusue city in Japan to develop green growth planning in Hai Phong; and with the Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE) of the MONRE, Kyoto University, Ritsumeikan University, the National Institute of Environmental Studies, the Institute of Global Environmental Studies, and Mizuho Research and Information Institute to develop low-carbon scenarios for Hai Phong city (Hai Phong MPC, 2017a). Though these international cooperation activities focused on climate change mitigation, this is evidence of international city-to-city networking in dealing with climate change issues.

In Decision 732/QĐ-UBND dated 4 April 2014 approving the municipal plan to implement the Plan 24-CTr/TU by the City Party Committee and the Resolution 08/NQ-CP by the national Government, the Hai Phong MPC identified 52 projects in which four projects were directly assigned to a municipal SOE for implementation (through direct government funding). The municipal SOE (the sewerage and drainage company) was treated as equal to functional agencies such as DONRE (10 projects), and the DARD (19 projects). Additionally, the Youth Union of Hai Phong through its Youth Volunteers Board has been carrying out a CCA related project, the construction of the Bach Long Vy water reservoir, funded from the SP-RCC Program. The participation of social-political organisations such as the Fatherland Front, Youth Union, and Women's Association in climate change propaganda and awareness raising is inevitable in Hai Phong (Interviewee SP1) as it is part of their mandates.

Hai Phong city also outsourced the project to prepare its action plan to respond to climate change and sea level rise to a research institute consultant. DONRE did not directly develop the Action Plan on its own, but contracted a consultant. DONRE's main role was to coordinate line departments in preparing the plan and organise workshops to seek comments from relevant stakeholders on the content of the plan. Once all parties agreed on the draft plan, DONRE then submitted it to the Hai Phong MPC for approval.

Overall, the municipal party adopted a plan to: (1) implement the Central Party Resolution 24-NQ/TW; and (2) steer government at three levels in Hai Phong to take CCA actions. Hai Phong Municipal People's Council were involved in CCA policy implementation in Hai Phong through its appraisal and approval of the city's annual budget, which includes capital for investment projects such as two infrastructure projects and three coastal afforestation projects with funds sourced from the SP-RCC. Both the municipal party and council play a role in CCA policy implementation and are indispensable actors in the CCA policy networks in Hai Phong.

7.2.6. Financing climate change adaptation

Similar to the budget structure at the national level, there is no budget line in the municipal state budget system earmarked for climate change response. Funds for CCA activities in Hai Phong city have come from national grants, international support, and municipal budgets (recurrent expenditure for environment protection or economic affairs). The city has prepared and issued its climate change action plan however, financial resources to deliver planned activities are largely inadequate, “without money it is hard to do anything” (Interviewee SP1). A representative from the Department of Climate Change (DCC), the ministerial department governing CCA nationwide, affirmed that “currently [as of 2017], the fund for responding to climate change is mainly from the central government, local governments do not invest in CCA” and “they only look forward to the national programs [NTP-RCC and SP-RCC]” (Interviewee SN2).

As mentioned in the section 7.2.3 on CCA project-level activities in Hai Phong, most CCA related projects have been funded through the NTP-RCC and the SP-RCC. Even the development of the main climate change policy document in Hai Phong, the Action Plan in 2014, was funded from the central budget (the NTP-RCC). The top-down financial mechanism has made local authorities and their staff view climate change as a source of funds rather than a problem to be addressed.

According to a representative from the DSI of the Hai Phong DONRE, the division is a state management agency, therefore it only implements functional activities (recurrent expenditure). The division does not manage investment budget allocated for CCA projects but other relevant municipal agencies. For example, the agriculture sector manages forestry and water resource protection infrastructure, and therefore this sector directly uses investment funds for CCA (Interviewee SP1). Similarly, a senior government official at central government stated that although the MONRE administers the climate change sector nationwide, it is not the key agency that uses most funds from climate change programs (Interviewee SN1).

In Hai Phong city, most CCA investment funds were allocated to the Hai An district, the Board of Youth Volunteers, DARD, and Bach Long Vy district. DONRE manages the implementation of five functional projects funded from recurrent expenditure, which is much lower than investment expenditure. For example, the CCA investment project in Bach Long Vy district alone cost USD 8,200,000 whereas all five functional projects implemented by the Hai Phong DONRE cost less than USD 200,000. The NRE sector manages climate change and is responsible for policy-level actions (planning) however, investments for CCA have not been run through the NRE sector but through other sectors and localities. The MONRE at national and DONRE at municipal level have limited powers in relation to deciding how climate change funds should be used and by whom.

7.2.7. Reporting: Feedback mechanism

As discussed in chapter six, the monitoring and evaluation of CCA implementation is regulated in all national climate change programs such as the NTP-RCC in 2008. The Decision 158/QĐ-TTg approving the NTP-RCC stated that, at the district level, DONRE is responsible for collecting, synthesising, managing, storing, and reporting relevant CCA activities on regular intervals; and the district people's committee has to periodically report to the municipal people's committee. At the municipal level, DONRE is the standing agency of the NTP-RCC program, responsible for managing, storing data and information reported by relevant agencies. The municipal people's committee reports to the central government the implementation of the NTP-RCC in the municipality (GoV, 2008). These are general provisions without any indicators for evaluation and reporting. The government's regulations show how the CCA implementation feedback information *should* flow from district level to the MONRE and Prime Minister. The lowest government level, the commune authority was absent in the government's reporting process under the NTP-RCC framework. This communication channel is however, on 'paper'. In practice, reporting if requested was mostly from municipality to MONRE and the GoV, and the district authorities were not involved in CCA implementation reporting (Interviewee SD1).

Observation showed that when there is a reporting request from the central government, provinces restrict the stakeholders which are responsible for providing information to those who are provincial-level agencies which are carrying out climate change projects funded from the state budget. For example, when Hai Phong city received a letter from MONRE to report the implementation of Resolution 24-NQ/TW, the municipal DONRE only requested line municipal departments to report, ignoring district authorities which are currently implementing at least two projects from the SP-RCC (they might also have other CCA related projects funded from other sources). In its Report 272/BC-STNMT dated 15 November 2017 submitted to the MONRE, the Hai Phong DONRE stated:

Pursuant to the Letter 5509/BTNMT-KHTC dated 16 October 2017 of MONRE and the Letter 7547/UBND-MT dated 31 October 2017 of the Municipal People's Committee on reporting the implementation of the Party Resolution 24-NQ/TW, DONRE has sent a Letter to line departments requesting for information, however, only the Department of Agriculture and Rural Development, Department of Construction, Department of Education and Training responded (Hai Phong DONRE, 2017).

Only activities funded by the government were reported, other efforts in CCA by private stakeholders (farmers, firms) were ignored. The formal administrative process did not fully capture actual CCAs at the local level. Additionally, the silo effect makes information scattered. Thus MONRE, although a standing government agency for climate change, is unable to sufficiently evaluate current nationwide CCA activities. MONRE's assessment largely depends on reports from Hai Phong, Soc Trang and other provinces and ministries. For example, when sectoral ministries worked with NGOs on issues relating to climate change in their sectors, they did not adequately report to MONRE even after being

requested (Interviewee SN3). Studying policy documents and reports prepared by government agencies and localities might not provide full understanding of CCA implementation on the ground since there could be activities being under-reported and/or reported activities might not be relevant to CCA. The current reporting mechanism is about reporting what the government agencies have been doing in relation to tasks assigned in climate change strategies, plans, programs and projects, thereby missing the adaption efforts of non-state actors and adaptation efforts in non-climate-change plans and programs which are highly relevant to CCA. MONRE is therefore unable to know what is going on in relation to CCA if only relying on government reports. The total CCA efforts of society are not reported and stocktaked properly through current reporting mechanisms (Interviewee SN10). The lack of personnel (both quantities and quality) in the context of increasing workloads also affects communication (including reporting) among public agencies. In Hai Phong city there are only three officials formally being mandated to work on climate change administration (note that the population of the city is 1,980,800 (Hai Phong Statistics Office, 2017)), and none of the three has an educational background in climate change (Interviewee SP1). The climate change personnel shortage in Soc Trang province is even worse (see section 7.3 and section 9.4 - the ‘funnel model’).

Decision 2445/2015/QĐ-UBND dated 28 October 2015 by Hai Phong MPC on collaboration regulation in implementing climate change investment projects in the City has some provisions on reporting and inspection (Article 4), including projects implementers (owners), report projects implementation progress in accordance with legislation on public investment. DONRE leads and collaborates with the DPI, DOF, and other departments and local authorities (in project sites) to inspect project owners, contractors on fund disbursement and state regulation compliance (Hai Phong MPC, 2015a). Decision 2445 is a legal basis for DONRE to conduct monitoring and evaluation (M&E) of CCA projects in Hai Phong city. There is one working group established to inspect climate change project implementation in the City (Interviewee SP1).

DONRE and line departments in Hai Phong city have conducted M&E fieldwork to inspect the implementation of CCA projects funded from the SP-RCC and NTP-RCC. The two programs are managed by the NRE sector. Therefore, MONRE at national level, DONRE at provincial and DIONRE at district level are the lead agencies in managing program implementation. There are many other afforestation and dyke building projects funded from other sources and such projects relate to CCA but the NRE agencies have no authority to undertake M&E. This reflects the fragmented management of public policy in Vietnam, where one policy can be implemented from different funding sources and government agencies’ duties are based on the funding sources or programs they manage. MARD manages the NTP on new rural development with many projects relevant to CCA, e.g. vulnerability reduction through poverty reduction for farmers or improving farmer living conditions by supplying clean water, but such projects are not counted by MONRE as CCA projects, as MONRE does not manage those projects and therefore is unable to integrate them into CCA efforts. For CCA projects funded from the NTP-RCC and SP-RCC, depending on the content of a project, the

DONRE has to cooperate with relevant functional departments to conduct M&E (Interviewee SP1). For example, in August 2019, the DSI under DONRE collaborated with the Division of Forest Protection under DARD to inspect the implementation of the project on planting protective forests to cover the bare land and hills, and to adapt to climate change in Bach Long Vy district. Based on the outcome of the inspection, DONRE and MARD recommended the Hai Phong MPC to allow Bach Long Vy district to adjust some contents of the project to improve its effectiveness (Hai Phong Municipal Portal, 2017). If inspecting a dyke building project, DONRE has to request the Department of Construction to be involved in the work. Although DONRE is the lead agency in climate change administration, it only evaluates the disbursement progress of climate change funds and technical issues such as construction norms and standards are not DONRE's expertise but the relevant departments (Interviewee SP1).

The spending of the state budget (through implementing programs and projects) by local governments is also subject to inspection by national authorities. The implementation of CCA related projects in Hai Phong is therefore monitored by other central government agencies other than MONRE. In 2018, the Government Inspectorate (GI) conducted inspections of management and implementation of investments in Hai Phong in the period of 2010-2017 (Dung, 2018). The GI is a ministerial-level agency at national level, and is part of the GoV machinery. One of the duties of the GI is to inspect the implementation of policies, laws and tasks, and powers exercised by ministries, ministerial-level agencies, and People's Committees of provinces and centrally-run cities (GoV, 2018a). In Hai Phong, the GI found evidence of mismanagement of some projects in the city including the project funded from the SP-RCC (construction of a ring road in the southeast of Hai An district, from Cau Rao bridge area to the intersection with the Hanoi-Hai Phong highway) (Dung, 2018). Similar to Hai Phong, there have been problems with mismanagement of CCA related projects in Soc Trang province (see section 7.3 below). Nonetheless, there is more than one M&E mechanism for CCA policy implementation. Depending on the actors taking M&E activities, the nature of inspection may vary. With the example above, the GI focused on state budget expenditure and the compliance with procurement legislation, while the MONRE focussed on 'technical' issues relating to CCA (realisation of CCA objectives stated in climate change policies).

However, overall M&E and reporting on CCA policy implementation in Hai Phong remain ad-hoc, program- and project-based, and upon request by higher level authorities. There is no systematic M&E of CCA with measurable indicators in the city or other localities in Vietnam.

7.3. The Province of Soc Trang

This section reports policy-level actions and project-level activities in Soc Trang province to implement national climate change policies (figure 7.5) and describes policy actors involved in the CCA policy implementation process (institutional arrangements and policy networks) as well as CCA financing and reporting.

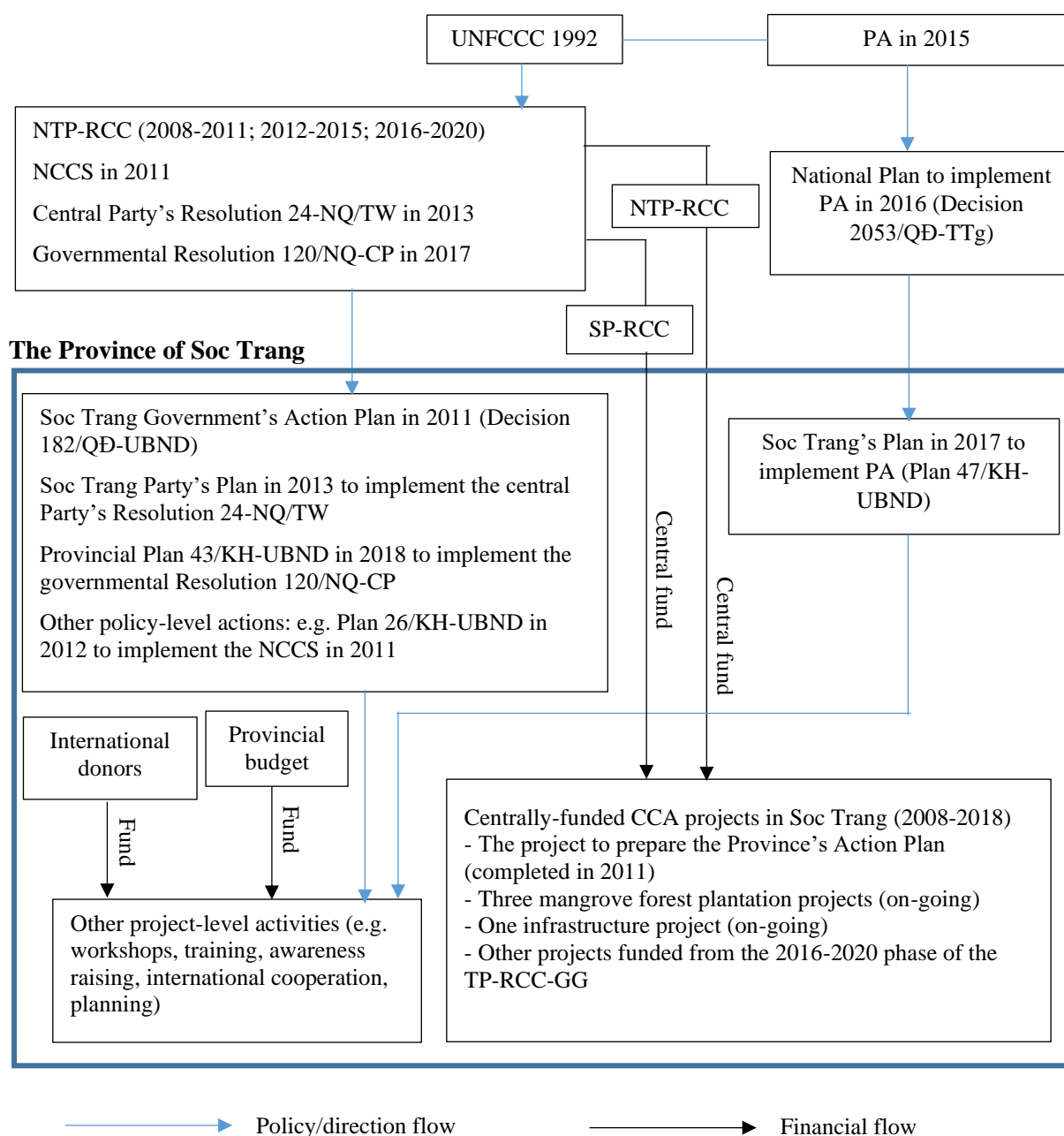


Figure 7.5: The flow of CCA policies from international and national level to Soc Trang province (source: Author)

7.3.1. Background information

Socio-economic and geographical conditions

Soc Trang is a coastal province located in the Mekong River Delta, southern Vietnam. The province has 72 km of coastline and is the poorest among 28 coastal provinces and centrally run cities in Vietnam (Schmitt, Albers, Pham & Dinh, 2013; General Statistics Office of Vietnam, 2017a). Similar to Hai Phong city, there are three administrative divisions within Soc Trang.

Climate change impacts

The Mekong Delta has been recognised as one of the most climate change vulnerable regions in the world (IPCC, 2014). As a province within this region, Soc Trang shares the high risks of climate change impacts. Previous studies (Eucker, 2011; Schmitt et al., 2013; Tamura et al., 2018), government reports (Soc Trang Provincial People's Committee [Soc Trang PPC], 2015, 2017), and interviews of government officials in Soc Trang (Interviewees SP7, SD4, SD6) highlight its vulnerability to climate change impacts.

In Soc Trang, the prevalent impacts mentioned by respondents were salinisation and coastal erosion (Interviewee SP7, SP13). Bureaucrats also commented that the vulnerability to climate change in their location (province, district or commune) was due to coastal exposure (Interviewees SP7, SD4). The impacts of future sea level rise in Soc Trang province were announced in the national climate change scenario published by the MONRE in 2016 (table 7.4).

Table 7.4: Inundation by sea level rise in Soc Trang and the Mekong Delta

Sea level rise	Inundation rate (% of total land area)	
	Soc Trang (322,330 ha)	Mekong River Delta (3,969,550 ha)
50 cm	2.46	4.48
60 cm	5.88	8.58
70 cm	10.80	14.70
80 cm	16.70	21.00
90 cm	25.80	28.20
100 cm	50.70	38.90

Source: MONRE (2016)

7.3.2. Policy-level actions

Pursuant to national climate change policy documents, regulations and guidelines, the Soc Trang government has taken policy actions to effect national CCA objectives to provincial priorities. The policy actions at the provincial level are similar to the planning process with outputs being plans to implement national policies. The following section presents the main CCA plans in Soc Trang at both provincial and district level. There was no policy-level action at commune level.

Provincial level

The Action Plan to respond to climate change and sea level rise in Soc Trang province for the 2011-2015 period

The provincial Action Plan was adopted in Decision 182/QĐ-UBND dated 22 July 2011 by the Soc Trang PPC. This is the main policy document on climate change response in Soc Trang.

The Action Plan was developed and issued pursuant to the NTP-RCC (Decision 158/QĐ-TTg in 2008) and the MONRE guideline on preparing local action plans to respond to climate change (Letter 3815/BTNMT-KTTVBĐKH dated 13 October 2009). Climate change policy actions at the provincial level have been directed by the central government (the Prime Minister and MONRE). The development of this plan was funded from the central budget through the NTP-RCC. This provincial policy document was published one year later than the deadline required by the Prime Minister in Decision 158/QĐ-TTg (in the case of Hai Phong city above, the delay was four years). The two local governments responded differently to the national government direction, and also with different levels of compliance, as there exists a certain level of discretion and autonomy in CCA governance at local level in relation to the national level in Vietnam.

The plan's main objectives are to orient programs and projects for development in Soc Trang province towards adapting to the trend of climate change, prevention and reduction of climate change related damages and risks, and to contribute to the implementation of national objectives for responding to climate change and sustainable socio-economic development in the province. The plan's solutions are: developing institutions and policies; awareness raising; residential planning; integrated water resources management; integrated coastal management (ICM); developing sectoral adaptation measures such as in agriculture, forestry, construction and transportation; community health assurance; mainstreaming climate change into socio-economic development plans in Soc Trang province; and mobilising international financial support (Soc Trang PPC, 2011).

The plan identifies a list of 25 specific projects to be assigned to relevant provincial departments for preparation and implementation. The projects are categorised into three groups: infrastructure or 'hard' measures with four projects; capacity building and awareness raising with two projects; and sectoral policy development with 19 projects. The total estimated budget for implementation of this Action Plan (25 projects) is USD 80 million (VND 1,800 billion) to be funded from four sources including the national budget through the NTP-RCC and SP-RCC, provincial budget, funding from international and private sector organisations, and mainstreaming into other related programs/projects. The structure of Soc Trang's climate change Action Plan is similar to that of Hai Phong which identified a list of 46 projects.

DONRE is assigned as the lead agency coordinating the plan's implementation and is in charge of five projects out of the 25. The DARD is responsible for 11 projects including all four infrastructure development projects. The budget for those 11 projects accounted for 91% of the total estimated budget of the whole plan. This implies that in Soc Trang province, the DARD is a key climate change policy implementer. This was also confirmed by local government officials who justified the dominant involvement of the agriculture sector in CCA as Soc Trang is an agricultural province (Interviewees SP6, SP7, SP11). DONRE takes climate change policy-level actions, identifies projects and even mobilises financial resources for implementation whilst the agriculture sector delivers specific projects

(and directly uses funds). This is where conflict between DONRE and DARD occurs, mostly in relation to fund allocation and use (personal communication with a senior official of planning and finance in Soc Trang DONRE, 14 August 2018).

This policy document has taken both impact-focused and vulnerability-centred approaches to adaptation resulting in both ‘hard’ CCA measures (infrastructure projects) and ‘soft’ measures (social welfare and public health improvement, residential planning, and sectoral policy development). However, most of the investment capital has been planned to address physical impacts of climate change. Consistent with national policy, the climate change Action Plan in Soc Trang is ‘hard’ adaptation biased. Of the three main coastal adaptation strategies (protection, accommodation and retreat) that have been commonly used in developing countries (IPCC, 2014), the protection strategy was given priority in Soc Trang province (Interviewee SP11), and other provinces in coastal Vietnam (National interviewee SN3; NGO interviewee NS6).

The Provincial Plan to implement the National Climate Change Strategy (NCCS)

This plan (26/KH-UBND dated 17/7/2012) was developed pursuant to the NCCS approved by the Prime Minister in 2011. Similar to the structure and contents of the NCCS 2011, the provincial plan identifies ten solutions to achieve its objectives. The format and contents of this plan look like a ‘copy’ of the NCCS 2011 with some changes to make it localised. This reinforces the findings by Nguyen (2017) who examined 40 provincial climate change action plans and concluded that the contents (objectives, priorities, solutions and activities) presented in the provincial climate change action plans were strongly determined by national climate policy prescriptions.

The provincial plan cited the preparation and implementation of the 25 projects identified in the Decision 182/QĐ-UBND approving the Action Plan to respond to climate change and sea level rise in Soc Trang province for the 2011-2015 period. There is a link between the two provincial plans, with policy coherence being taken into account in Soc Trang province’s climate change planning process.

Provincial Party Action Plan to implement Resolution 24-NQ/TW

The Party Action Plan (28-CTr/TU dated 7/8/2013) was developed and issued by the Party Committee in Soc Trang province. It is a plan of the provincial party developed in accordance with the Resolution 24-NQ/TW dated 3 June 2013 by the Party Central Committee. By issuing this political document, the Soc Trang Provincial Party steers and orientates the Soc Trang Provincial Government in taking actions to address climate change impacts in the Province. The Party Central Committee adopted the Resolution 24-NQ/TW, the Provincial Party Committee then issued a plan to implement this resolution. The GoV approved the NCCS and the Soc Trang PPC then issued its Plan to implement this NCCS. These two policy channels would continue to flow to the district level in relation to climate change policy; for some other policy areas the channels might flow down further to the lowest

government level - commune.

Provincial Government Plan to implement the Action Plan 28-CTr/TU

In order to implement the Plan 28-CTr/TU by the Provincial Party Committee, the Provincial People's Committee (Government) developed and issued another plan (81/KH-UBND dated 18/12/2013). This clearly reveals that the party leads the government. This also expresses a local-local relationship rather than central-local relationship (Plan 81 of Soc Trang Government was developed in accordance with Plan 28 of Soc Trang Party; the relationship between Plan 28 of Soc Trang Party and the Resolution 24-NQ/TW is central-local). The party's policy flow is faster than that of the government, though the latter yields concrete outcomes on the ground, the former in some case is 'symbolic' or in the word of a district government official: it is merely a procedural matter (*chỉ là thủ tục*) (Interviewee SD1).

Plan 81 includes tasks such as timely implementing the party's direction and policies on climate change; raising awareness on disaster prevention and climate change; reviewing, amending, and supplementing socio-economic development plans and sectoral plans in response to climate extreme events and disasters in vulnerable areas such as Vinh Chau, Tran De, and Cu Lao Dung districts; developing an action plan to respond to climate change in Soc Trang province for the period 2015-2025; facilitating the implementation of projects listed in Decision 182/QĐ-UBND - provincial climate change Action Plan, and strengthening the state management apparatuses in response to climate change, such as creating mechanisms for the general public to participate in monitoring the implementation of climate change response. In line with some national-level policies, this provincial plan highlighted the need for the involvement of societal actors in the climate change policy process.

Provincial Government Plan to implement Decision 2053/QĐ-TTg by the Prime Minister on the implementation of the Paris Agreement (PA)

In April 2017, the Soc Trang PPC adopted Plan 47/KH-UBND. This Plan was developed and published pursuant to the Decision 2053/QĐ-TTg and Letter 199/TTg-QHQT by the Prime Minister. Additionally, the MONRE also issued a guideline for ministries and provinces to develop their own plans to implement the PA (Letter 4126/BTNMT-BĐKH). As of 2017, Soc Trang province was one of the few provinces in Vietnam that had developed and approved plans to implement the PA in their localities.

Plan 47/KH-UBND centres four groups of issues in Soc Trang province: climate change mitigation; CCA; resources development (human and financial); and policy and institution development. These issues are specified in 28 projects to be assigned to relevant departments in the province.

Provincial Plan to implement Resolution 120

To implement government Resolution 120/NQ-CP dated 17 November 2017, Soc Trang PPC has

adopted Plan 43/KH-UBND dated 13 April 2018. Note that this resolution only takes effect in the Mekong River Delta, which is why Hai Phong city did not have any policy action or project in relation to implementing the government Resolution 120/NQ-CP. The Soc Trang PPC assigned the DPI to prepare this provincial plan, as the lead agency coordinating implementation activities. Generally, the DPI is responsible for social-economic development, planning and investment in Soc Trang. This implies that the approach of the Soc Trang authority has shifted from environmental aspects of climate change to developmental dimensions. In this plan, Soc Trang identified a list of 20 projects of which 13 are infrastructure developments. An interview with an official from this DPI (Interviewee SP11) revealed that planning and investment officials in Soc Trang viewed climate change as a source of funds to be exploited, the official noted: “currently, investments for projects are mainly sourced from climate change, the previous sources like government bonds have been exhausted”.

There are some other provincial plans on green growth, sustainable development, and disaster management which also relate to climate change issues however, the present research focuses on CCA, and those plans were therefore excluded. There have been many plans adopted by Soc Trang’s authority in relation to climate change response. Government officials at both central and provincial levels acknowledged this situation (Interviewees SN1, SP7). Table 7.5 notes planning documents made and adopted at the provincial level. At the next administrative level, Vinh Chau district has also issued a plan on climate change response.

Table 7.5: List of provincial plans in Soc Trang to implement national CCA policy

No.	Provincial document	Year of adoption	Respective national document
1	Action Plan to respond to climate change and sea level rise in Soc Trang province for the 2011-2015 period.	2011	NTP-RCC 2008
2	Provincial Plan to implement the NCCS.	2012	NCCS 2011
3	Provincial Party Action Plan to implement Resolution 24-NQ/TW.	2013	Central Party Resolution 24-NQ/TW 2013
4	Provincial Government Plan to implement the Action Plan 28-CTr/TU.	2013	Provincial Party Plan 28-CTr/TU 2013
5	Provincial Government Plan to implement Decision 2053/QĐ-TTg by the Prime Minister on the implementation of the PA.	2017	National Plan to implement PA 2016
6	Provincial Plan to implement Resolution 120/NQ-CP.	2018	Government Resolution 120/NQ-CP 2017

Source: Author compiled from Soc Trang governmental documents

District level

District Party's Action Plan to Implement Resolution 24-NQ/TW

Soc Trang province consists of 11 districts including Vinh Chau (Soc Trang Statistics Office, 2017). Vinh Chau District Party Committee issued Plan 34-CTHĐ/TU dated 18 September 2013 pursuant to the Plan 28-CTr/TU by the Soc Trang Provincial Party Committee. The Party Central Committee's policy (Resolution 24) has been transmitted through the provincial party's policy (Plan 28) then continued to flow to the district party's policy (Plan 34). This is one formal channel of information flow in climate change governance in Vietnam - the party system.

The plan's objectives are: proactively adapting to climate change and preventing disasters; improving the capacity of the functional institutions for forecasting, warning of disasters and monitoring of climate change; forming a sense of proactive disaster prevention and adaptation to climate change for each member of society; gradually reducing the disaster damages on population and assets; and proactively preventing and controlling impacts of storms, tidal surges and salinity intrusion due to sea level rise in the coastal areas. The wording of the district party's plan is similar to the objectives stated in the Resolution 24-NQ/TW at central level and the Plan 28/CTr-TU at provincial level, which shows the consistency of related policies across different administrative/political levels and also a lack of innovation in local climate change policy. The development of the district party's plan appears to solely comply with the higher level party's direction, not to meet the needs of CCA in the district.

The main tasks identified in the plan are: collaborating with provincial departments and agencies to effectively implement prioritised tasks and projects in the action plan to respond to climate change and sea level rise in Soc Trang province in the period of 2010-2015 (Decision 182/QĐ-UBND); reviewing and mainstreaming responses to climate change and sea level rise in socio-economic development plans, land use plans and sectoral development plans of the district; consolidating and building sea and river dykes and irrigation systems; promoting the protection and development of coastal mangroves; planting protective forests; and participating in research conducted by international and national organisations on impacts of climate change, salinity intrusion and response measures in the district. Referring to the provincial Plan adopted in Decision 182/QĐ-UBND shows that Vinh Chau district authority is aware of the provincial-level direction, CCA information has been formally transmitted to the district level.

The district party's plan requested the district People's Committee (government) to develop its action plan, which had not been accomplished as of September 2018. Some degrees of discretion and autonomy are observed at Vinh Chau District authority. An interview with a cadre of the Vinh Chau DIONRE revealed that the division already prepared drafts of such a plan, submitted to the District People's Committee for approval however, the committee had not made a decision yet.

As a district within Soc Trang province and directly under the leadership of the Soc Trang PPC, Vinh Chau has to take relevant actions to implement the climate change action plan already adopted by the PPC in 2011. In this regard, a senior government official at national level claimed that there is no need for district level authorities to develop their climate change response action plans, as districts should take climate change actions in accordance with the leadership of the provincial authorities (Interviewee SN1).

In the provincial Plan 43/KH-UBND to implement the governmental Resolution 120/NQ-CP, the provincial authority has requested district authorities including Vinh Chau to be responsible for implementing the plan in a district context and report implementation progress upon request of the DPI (the coordinator of the plan) (Soc Trang PPC, 2018). Similarly, the provincial Plan 26/KH-UBND was to implement the national NCCS, with the Soc Trang PPC asking district governments to: develop mechanisms for implementation of climate change response activities in their district; proactively develop and implement district-level response plans in line with the provincial plans; and realise and implement the objectives and tasks assigned by the Soc Trang PPC (Soc Trang PPC, 2012). These directions are basis for district authorities to take relevant CCA actions.

Communal level

Vinh Chau district has ten communes including Phuong 1, Phuong 2, and Vinh Hai (Vinh Chau Statistical Branch, 2016). There was no climate change policy response plan made at the three communes under investigation in Soc Trang province, even within the party channel which is very forceful in Vietnamese politics. In Soc Trang and Hai Phong (and the other 61 localities), this lowest administrative level did not formulate its own climate change response plan. There was no CCA policy-level action taken by the street-level bureaucracies in Hai Phong and Soc Trang. This is understandable given the low institutional, financial and policy capacity at the commune level (Interviewees NS1, SP1, SD4; also see Phuong et al. (2018)). This does however create a paradox: climate change impacts are manifested in communities whilst communal authorities has no plan to deal with them.

Commenting on the adequacy of the existing climate change policy documents, a government official working for Soc Trang DONRE stated that the policy-level actions at both national level and in Soc Trang have mostly resulted in guiding documents and there is a lack of laws or decrees (Interviewee SP6). Officials in Hai Phong who directly work on climate change administration also raised the issue of a lack of legal support for state management of CCA. They expected to have legal instruments which are more ‘powerful’ for them in administering the climate change sector in their localities (Interviewees SP1, SP2).

Most of the plans introduced by the Soc Trang government and party do not directly yield any concrete outcome or impact on the ground. These plans appear as mere rhetorical exercises (Benedikter, 2016). The most important plan is the Action Plan to respond to climate change adopted

in 2011 with 25 proposed projects. However, the implementation of these planned projects in Soc Trang remains limited. The following section discusses this situation.

7.3.3. Project-level activities

The climate change Action Plan of Soc Trang identified 25 projects to be implemented by relevant provincial agencies. However, due to budget constraints not many planned projects have been carried out (Soc Trang PPC, 2015; Interviewees SP6, SP7, SP13).

Based on the reports submitted to the MONRE by the Soc Trang PPC and interviews with local government officials, it appears that most completed and on-going CCA related projects in the Province were under the national programs (the NTP-RCC and SP-RCC, both managed by the MONRE), and the coastal forest program (managed by the MARD) with many projects funded from the SP-RCC. There were seven projects being funded from central budget, only one was locally funded (table 7.6).

Table 7.6: List of CCA related projects in Soc Trang province funded from central and provincial budgets (2008-2018)

No.	Project title	Source of funds	Project owner (implementer)
1	Developing an Action Plan to respond to climate change in Soc Trang province.	NTP-RCC	DONRE
2	Building river embankments to combat flooding in low-lying areas in Nga Nam district.	SP-RCC	PMU2
3	Erosion prevention, sediment landform for mangrove trees to protect sea dykes in Vinh Hai commune, Vinh Chau district.	SP-RCC	Forestry PMU
4	Sediment landform for planting mangrove trees to protect the sea dyke in Vinh Tan and Vinh Phuoc communes, Vinh Chau district.	SP-RCC	Forestry PMU
5	Piloting plantation and restoration of mangrove forests to adapt to climate change in coastal areas.	NTP-RCC SP-RCC	Forestry PMU
6	Communication activities, raising awareness about climate change for the bureaucrats and the general public in Soc Trang province.	Provincial budget	DONRE
7	Updating the Action Plan to respond to climate change in Soc Trang.	TP-RCC-GG	DONRE
8	Assessment of Soc Trang province's climate.	TP-RCC-GG	DONRE

Sources: Soc Trang PPC (2015) and interviews

All four projects managed by DONRE were funded from recurrent expenditure sources, while the remaining four projects were investment projects. Of the eight projects only one was funded from the local budget of Soc Trang. The total funds allocated for the four DONRE's projects was about USD 170,000 (VND 4 billion), while the investment project on building river embankments to combat flooding in low-lying areas in Nga Nam district alone cost USD 7,500,000 (VND 173 billion). Though taking the lead role in climate change administration in Soc Trang, DONRE did not implement large

scale investment projects. This situation is similar to the Hai Phong DONRE. The NRE sector planned and mobilised funds for CCA actions but most of the projects and funds have been delivered and expended by other sectors such as agriculture.

None of the completed and on-going CCA related projects in Soc Trang has been authorised to Vinh Chau district or the three communes (Phuong 1, Phuong 2, and Vinh Hai) for implementation. These localities have only participated in some activities of afforestation projects owned by provincial-level agencies and some NGOs projects (e.g. CARE Vietnam).

The Soc Trang DONRE is currently implementing a project on communication activities, raising awareness on climate change for government officials at all three levels (provincial, district, commune) and the general public. The project was approved by the Soc Trang PPC under Decision 1406/QĐ-UBND dated 15 June 2018. The fund to implement this project was allocated from the expenditure on economic affairs (provincial budget). The Soc Trang DONRE is the project implementer however, the DOF was the agency that submitted the project document to the Soc Trang PPC for approval. This means DONRE had to work closely with the DOF to secure funds for the project and avoiding delay in the appraisal process by the DOF. Note that this interaction occurs when a project is funded from the recurrent expenditure source of a provincial budget. If it was an investment project funded from the provincial capital expenditure then DONRE would have to work with the DPI. In respect to the CCA projects funded from central budget, the Soc Trang DONRE had a limited role. Project selection was decided by national ministries and the Prime Minister, with implementation conducted by other sector agencies, not NRE.

In addition to the eight projects funded from central and provincial budgets, Soc Trang province has received financial support from international donors to implement some CCA related projects (table 7.7) (Soc Trang PPC, 2015). According to a senior official working for the provincial DONRE, there are other ‘soft’ adaptation measures that the provincial authority has collaborated with NGOs or they have used annual budgets to disseminate regulations on climate change issues and deploy community-based pilot models (Interviewee SP7).

Table 7.7: List of CCA related projects in Soc Trang funded by international donors

No.	Project title	Donor
1	Development and adaptation in Soc Trang province.	AusAID
2	Agriculture, fishing development and environment based on CCA strategies for the Mekong Delta.	Can Tho University, Vietnam and Wageningen University, the Netherlands
3	Climate change resilience enhancement in coastal regions of Vietnam, Cambodia, and Thailand.	IUCN
4	Climate Change and water supply in Soc Trang.	Vitens-Evides International
5	Piloting coastal mangrove forest plantation.	Premier Oil (enterprise)

6	Community-based adaptation (CBA) in the Mekong Delta.	CARE
7	Natural resources management in coastal areas of Soc Trang province.	GIZ

Source: Soc Trang PPC (2015)

State-funded activities relating to CCA (e.g. infrastructure development and impact assessment) in localities were mostly carried out by agencies at district, provincial or even national levels. The general public, street-level bureaucracies and their bureaucrats only participated in limited activities with roles as stakeholders, not project owners. Some activities on raising awareness and CBA piloting models were conducted and managed by NGOs, which worked directly with the local residents. NGOs employed the bottom-up approach to climate change action. None of the three communes in Vinh Chau were delegated to directly carry out any state-funded CCA projects (nor were the two communes in Hai Phong). This is not situation in Soc Trang and Hai Phong only, but also in other provinces and cities across Vietnam (see Nguyen, 2017; Phuong et al., 2018).

There is a declining trend in the number of CCA related projects being approved and funds allocated for implementation in Soc Trang province (Interviewee SP6). A senior official working for the DIONRE in Vinh Chau district also reported that climate change activities and projects have not been as extensive as in the past (Interviewee SD4). This situation has not only occurred in Soc Trang but nationwide, with a leader of the DCC, of the MONRE noting the GoV and MONRE had announced that there would be support from the international community for CCA activities. However, after five years of experiencing limited progression, localities have lost their interests in CCA (Interviewee SN2). This has disclosed some of the underlying motives of localities to develop their plans and projects to adapt to climate change, in terms of expecting to attract investment rather than addressing climate change impacts.

7.3.4. Institutional arrangements

Consistent with the national government and similar to Hai Phong city, DONRE at provincial and DIONRE at district level are coordinators of CCA policy implementation. The agriculture sector, mandated to DARD, is the key CCA project implementer.

The arrangements of public agencies in Soc Trang province (figure 7.6) is similar to Hai Phong city since they all comply with the *Law on organisation of local government 2015* (Law 77/2015/QH13), accordingly there are three administrative divisions of local government: provincial, district, and commune. The people's committees at each level are the executive agencies in localities, holding accountability for local people, people's councils, and higher level executive agencies. There are also functional agencies organised at provincial and district levels. These agencies assist the people's committees to perform the function of state management of public sectors within the localities, and the duties and powers according to the decentralisation and authorisation of superior state agencies (*Law*

on organisation of local government 2015). The organisation and operation of functional agencies are regulated by governmental Decree 24/2014/NĐ-CP dated 4 April 2014 (GoV, 2014c). Each sector (e.g. natural resources and environment; agricultural and rural development; and planning and investment) has their own organisational structure (see chapter four).

Policy actors

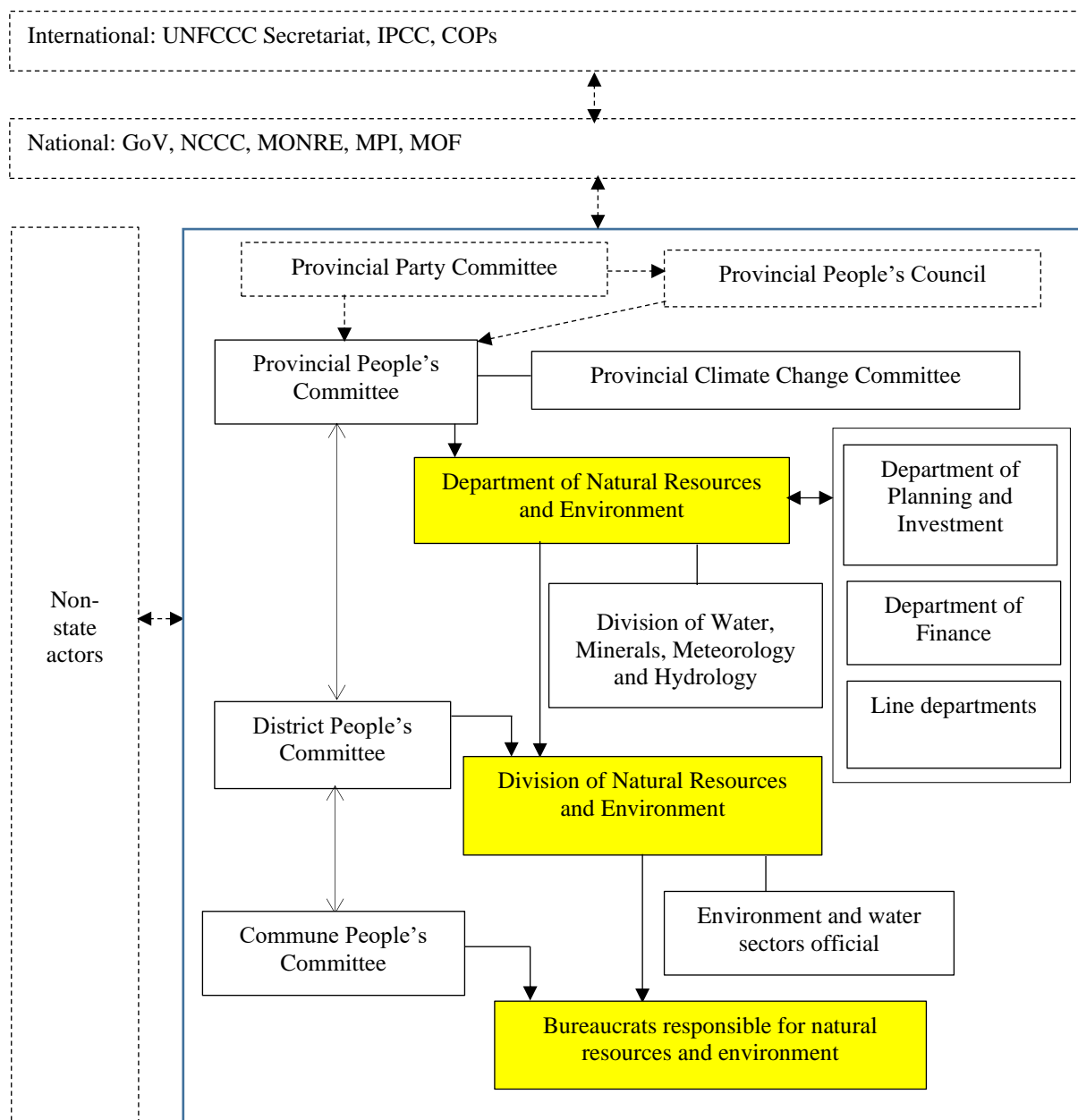


Figure 7.6: Key state actors involved in vertical CCA policy implementation in Soc Trang province (source: Author)

In respect of the NRE sector, the MONRE and Ministry of Home Affairs jointly issued Circular 50/2014/TTLT-BTNMT-BNV dated 28 August 2014 on guiding the functions, duties, powers and organisational structure of DONRE under the people's committees of provinces, and the DIONRE under people's committees of districts. This explains the consistency of the NRE sector administrative

machinery across 63 provinces and centrally-run cities in Vietnam. Local governments are unable to design their own administrative system and have to follow the general structure designed by the central government.

The Law 77/2015/QH13 by the NA and Decree 24/2014/NĐ-CP by the GoV must be strictly complied with, however the provisions in Circular 50/2014/TTLT-BTNMT-BNV (ministerial level) are less strict, leading to variations in organisational structures within DONRE across provinces (the number of provincial departments are strictly regulated by law and decided by national authority; however, the subordinate units within each department are flexible and decided by provincial people's committees). For example, Hai Phong's DONRE has 15 divisions while Soc Trang's DONRE has 13. The former assigns climate change to its DSI while the latter mandates the sector to the Division of Water, Minerals, Meteorology, and Hydrology (DWMMH).

Soc Trang Provincial People's Committee (Soc Trang PPC)

This highest provincial administrative agency is responsible for governing all public issues within Soc Trang province. The Soc Trang PPC directs DONRE in managing climate change. The PPC established the Provincial Climate Change Steering Committee in 2011 to coordinate climate change actions in the Province (see below). The Soc Trang PPC has to report to the MONRE and GoV its progress in implementing national climate change policies and programs such as the NTP-RCC, the NCCS, and the Party Resolution 24-NQ/TW at regular intervals or upon request.

Specific responsibilities of PPCs in relation to climate change response as well as CCA are regulated in each national strategy, plan or program on climate change e.g. the NTP-RCC of 2008 (GoV, 2008). The effectiveness of CCA governance in a province depends on PPC's political commitment and leadership (Interviewee SN8), it also depends on the 'relationships' between the PPC and the GoV and key central government ministries such as the MONRE, MPI, and MOF as these ministries decide on investments for climate change projects to be implemented in provinces.

Soc Trang Department of Natural Resources and Environment (Soc Trang DONRE)

The Soc Trang DONRE is the lead agency in climate change administration in Soc Trang province. The Department's functions, duties, powers and organisational structure are stipulated in Decision 30/QĐ-UBND dated 21 August 2015 by Provincial People's Committee. According to the Decision 30, Soc Trang DONRE is a provincial level department in Soc Trang province, responsible for: state land management; water resources; mineral resources and geology; environment; meteorology and hydrology; climate change; surveys and mapping; and integrated management of seas and islands. With respect to CCA it is responsible for: developing and updating the province's action plan to respond to climate change; guiding and coordinating implementation; implementing national climate change strategies, programs, plans and projects; monitoring the implementation of the objectives

identified in the Province's climate change programs; and monitoring and assessing the impacts of climate change and proposing response measures (Soc Trang PPC, 2015).

The functions and duties of the Soc Trang DONRE are similar to Hai Phong's DONRE (mentioned in section 7.2.4) though they are in localities affected differently by climate change impacts. Both were established and mandated pursuant to the Circular 50/2014/TTLT-BTNMT-BNV. The Soc Trang DONRE operates and performs its duties under direct leadership of the Soc Trang PPC, and the relationship between the DONRE and the MONRE is more technical than administrative.

Within the Soc Trang DONRE, the climate change function is delegated to the DWMMH. This is different from the Hai Phong DONRE where climate change is administered by the DSI. The difference also includes the administrative and legal status of the two divisions. The DSI in the Hai Phong DONRE has its own bank account whereas the DWMMH in the Soc Trang DONRE does not. This means by law, the DSI could directly use state budget and contract consultants to implement projects. The DWMMH does not have that advantage, and has to 'borrow' financial authority from another division within the Soc Trang DONRE to carry out state-funded activities.

Soc Trang Climate Change Steering Committee

The Soc Trang Climate Change Steering Committee was established under Decision 429/QĐTC-CTUBND dated 14 September 2011 by the Soc Trang PPC. The Committee has 22 members headed by a Vice Chairman of the Soc Trang PPC, and a Deputy Chairman is the Deputy Director of the provincial DONRE; other members are representatives from relevant provincial departments and all 11 districts in the province. The inclusion of representatives from lower level authorities would facilitate multi-level coordination. In the case of Hai Phong, its Climate Change Steering Committee does not have any representative from district authorities, however, it has two representatives from municipal socio-political organisations. All members of Soc Trang's Committees are from government agencies. The establishment of both climate change Committees in Soc Trang and Hai Phong has followed the direction of the GoV in the NTP-RCC 2008.

The main tasks of the climate change committee include: advising the Provincial Party Committee and People's Committee in implementing the Action Plan to respond to climate change approved under Decision 182/QĐ-UBND; proposing policies, solutions to implementation, budgeting and allocating funds to implement the action plan; and guiding, monitoring and reporting the implementation of the plan. However, since 2011, there have been only limited activities by this committee (Interviewee SP6). Due to the inaction of climate change committees in provinces and cities, a national government official predicted that eventually the climate change committees would be merged with the disaster prevention and control committees (Interviewee SN10).

Line departments: Department of Planning and Investment (DPI); Department of Finance (DOF); and Project Management Units (PMUs)

Similar to the roles of the MPI and MOF at national level; and the DPI and DOF in Hai Phong; the DPI and DOF in Soc Trang are responsible for allocating funds for public policy implementation including CCA policy in the Province. The DPI of Soc Trang was also tasked with developing a provincial plan to implement the governmental Resolution 120/NQ-CP on sustainable and climate-resilient development of the Mekong Delta.

In accordance with the *Law on construction 2014* (Article 63) and government Decree 59/2015/NĐ-CP (Article 18), Soc Trang PPC has established some provincial PMUs, which are department-level bodies to assist the PPC in managing investment projects in some sectors. These PMUs perform the tasks of planning implementation, procurement, contract supervision, monitoring, and reporting. In relation to CCA related project management, there are two provincial PMUs in Soc Trang: PMU 2 (responsible for agriculture, irrigation projects); and forestry PMU (afforestation investment projects). All three CCA projects on afforestation in Soc Trang were assigned to the forestry PMU. The PMU 2 manages the project on building river embankments in Nga Nam district, (see table 7.6 in section 7.3.3). This means the provincial-level bodies directly implement CCA projects located in districts and communes.

Vinh Chau Division of Natural Resources and Environment (DIONRE)

The Decree 37/2014/NĐ-CP in 2014 of the GoV regulating on functional agencies in district government and the Circular 50/2014/TTLT-BTNMT-BNV in 2014 of the MONRE and the Ministry of Home Affairs guiding the establishment of the district-level DIONRE. The Vinh Chau District People's Committee adopted Decision 04/2015/QĐ-UBND in 2015 on the functions, duties, powers and organisational structure of the DIONRE of Vinh Chau.

Similar to the DIONRE of Do Son in Hai Phong city, the DIONRE of Vinh Chau is responsible for state management of the NRE sector in the District, with six sectors: land; water resources; minerals; environment; climate change; and sea. Administratively, DIONRE is under direct leadership of the Vinh Chau District People's Committee; technically however, it is under the instruction of the provincial DONRE.

The public management of climate change in Vietnam is clearly mandated to the NRE sector. The vertical institutional arrangements across administrative levels are the MONRE, DONRE and DIONRE at national, provincial and district levels respectively. Within MONRE, the DCC takes the lead role in climate change administration, however, within the Soc Trang DONRE, there is no specialised unit solely responsible for climate change. Instead, responsibility is assigned to the DWMMH, which is also in charge of water, minerals, meteorology, and hydrological management.

Within Vinh Chau DIONRE, there are no sub-units, only individual officials. The organisational and personnel arrangements for the climate change sector from national to district and commune levels can therefore be seen as a ‘funnel’ model, getting narrower in going from the ‘top’ to the ‘bottom’. In respect to personnel: DCC at the national level has 41 officials, of which five work in the Division of Adaptation (personal communication with an official working for DCC, August 2018); at the provincial level of Soc Trang, the DWMMH has five officials, with the climate change sector assigned only one, however, regular work is shared among the five (Interviewee SP6). In Vinh Chau district, DIONRE has five permanent officials and three contract-based staff, and climate change is assigned to contract-based staff who are in charge of water and environment (Interviewee SD4).

An official of the Vinh Chau DIONRE stated that environment and climate change should be integrated (Interviewee SD4) although this is not the case at national and provincial levels. For example, at national level, environment and climate change are two separate areas assigned to the Vietnam Environment Agency and the DCC respectively within the MONRE. In Soc Trang the Division of Environment Protection is in charge of environment and the DWMMH is responsible for climate change. At district level, the DIONRE is not structured into subordinate units but individual bureaucrats who work on six sectors (land, water, minerals, environment, climate change, and sea). Owing to inadequate personnel, one bureaucrat has to cover more than one area, with climate change and environment assigned to only one staff member.

The ‘funnel’ model applies for institutional arrangements, personnel, and policy-level actions and project-level activities. Going from the ‘top’ to the ‘bottom’, there are fewer bureaucrats and activities in relation to CCA against the fact that climate change impacts manifest at the ‘bottom’.

Communal bureaucrats responsible for natural resources and environment (NRE)

In the Phuong 1, Phuong 2 and Vinh Hai communes there was no functional body responsible for the climate change sector. The management of NRE in a commune is assigned to one or two cadres. There is no NRE bureaucrat at commune level who has climate change in their job description, but mostly land and environment issues (Interviewees SC3, SC4, SC5). This is due to the fact that there is no regular work and budget in relation to CCA at commune level.

Policy actor interactions

Generally, the interaction among state agencies in CCA management in Soc Trang is mainly based on administrative relationships, where lower level authorities have to comply with orders from higher level authorities. Within a level, functional agencies have to perform the duties mandated by the people’s committee, and line agencies collaborate with each other based on their functions, duties and powers. Additionally, the collaboration among relevant agencies in the province in carrying out CCA policy-level actions and project-level activities is regulated in specific decisions. For example, in

Decision 182/QĐ-UBND adopting the climate change Action Plan, the Soc Trang PPC requested line departments to collaborate with DONRE to implement tasks and projects assigned in the Plan (Soc Trang PPC, 2011).

In March 2017, at the proposal of DONRE, Soc Trang province promulgated a legal document on collaboration in state management of meteorology and hydrology in Soc Trang (Decision 13/2017/QĐ-UBND). Paragraph 7, Article 3 of the Decision regulates on collaboration activities in climate change responses. Article 4 stipulates responsibilities of seven agencies including DONRE, DARD, hydro-meteorological station, disaster prevention steering committee, radio and television station, and the district and commune people's committees.

In its report submitted to the MONRE in 2015, the Soc Trang PPC asserted that collaboration among sectors and localities within the Province has not been effective (Soc Trang PPC, 2015). A district official working for the DIONRE highlighted the complexity of relationships between the DIONRE and other district divisions, and the people's council and party committee since they decide important work and investment in the district (Interviewee SD4). According to the official, there is a lack of leadership in climate change administration by the district's people's committee while the DIONRE is unable to tell other divisions what to do. However, interviews of government officials at provincial level suggested that collaboration among provincial departments was not problematic (Interviewees SP6, SP7, SP12, SP13).

The coordination role of the provincial Climate Change Steering Committee is limited since there has been no regular meetings of members (Interviewee SP7). The Soc Trang Committee is similar to the Hai Phong Committee. According to a national government official, such committees are not working effectively as there was no funds allocated for their operation (Interviewee SN10).

The forestry PMU's operation and performance sometimes conflict with the DARD, which is the executive agency responsible for public management of forestry in the province. The DARD is also responsible for M&E the implementation of state-funded forestry projects including ones implemented by PMUs. However, the head of the forestry PMU is also a leader of the DARD, making the M&E process of the DARD challenging (Interviewee SP13). This dual role of departmental leaders in Soc Trang is problematic in practice as it is not transparent (personal communication with a senior official working in the Division of Planning and Finance, Soc Trang DONRE, 14 August 2018). In this regard, the Asian Development Bank (ADB) (2005) pointed out the complexity of authority relationships between PMUs and executive agencies (e.g. DARD and DONRE) in Vietnam, leading to project implementation delays and conflicts among involved actors.

There is a pilot regulation on regional coordination in the Mekong River Delta ratified by the Prime Minister under Decision 593/QĐ-TTg in April 2016 (supra-provincial coordination). The MPI takes the lead in managing the implementation of this regulation. Additionally, under government

Resolution 120/NQ-CP in 2017, the MPI has been tasked with proposing the establishment of a regional coordination council for the Mekong River Delta (GoV, 2017a). These supra-provincial institutional arrangements however, influence the interaction between Soc Trang and the other 12 provinces in the Mekong Delta rather than public agencies within Soc Trang province.

7.3.5. Policy networks

There is a wide range of policy actors involved in CCA policy-level action and project-level activities in Soc Trang (figure 7.7). The key roles of government actors in the CCA policy implementation process are noted in section 7.3.4, this section describes the involvement of non-governmental actors.

The party and council at all levels decide important socio-economic issues in their localities such as investment projects and state budget allocation, which directly influence policy implementation. In Vinh Chau district for example, planning and budgeting processes must follow district Party Standing Committee direction and People's Council approval (Interviewee SD4). At both provincial and district level, Party Committees have adopted plans to implement the central Party Resolution 24-NQ/TW (see section 7.3.2). These political plans provide the direction and foundation for government agencies to take further actions.

The media, such as the provincial radio and television station, has been mandated by the Soc Trang PPC under Decision 13/2017/QĐ-UBND to propagate and raise awareness of climate change. This responsibility of the station is even legalised in the *Law on meteorology and hydrology 2015* (Paragraph 2, Article 7) which applies to all local radio and television stations. The media also plays the role of a watchdog organisation reporting wrongdoings in work performance of government agencies. In relation to CCA policy implementation in Soc Trang, Dantri online newspaper reported the mismanagement of the CCA project on building river embankments in Nga Nam district (Duong, 2019b).

Private firms have also been involved in CCA project-level activities in Soc Trang. DONRE contracted the Southern Natural Resources and Environment Company to conduct empirical studies on climate change impacts and prepare the provincial Action Plan to respond to climate change in Soc Trang and Tran Nguyen Ltd. to develop the project on raising awareness of climate change. Additionally by law, all four investment CCA projects (one construction and three afforestation projects) in Soc Trang must tender to select contractors which are private or SOEs.

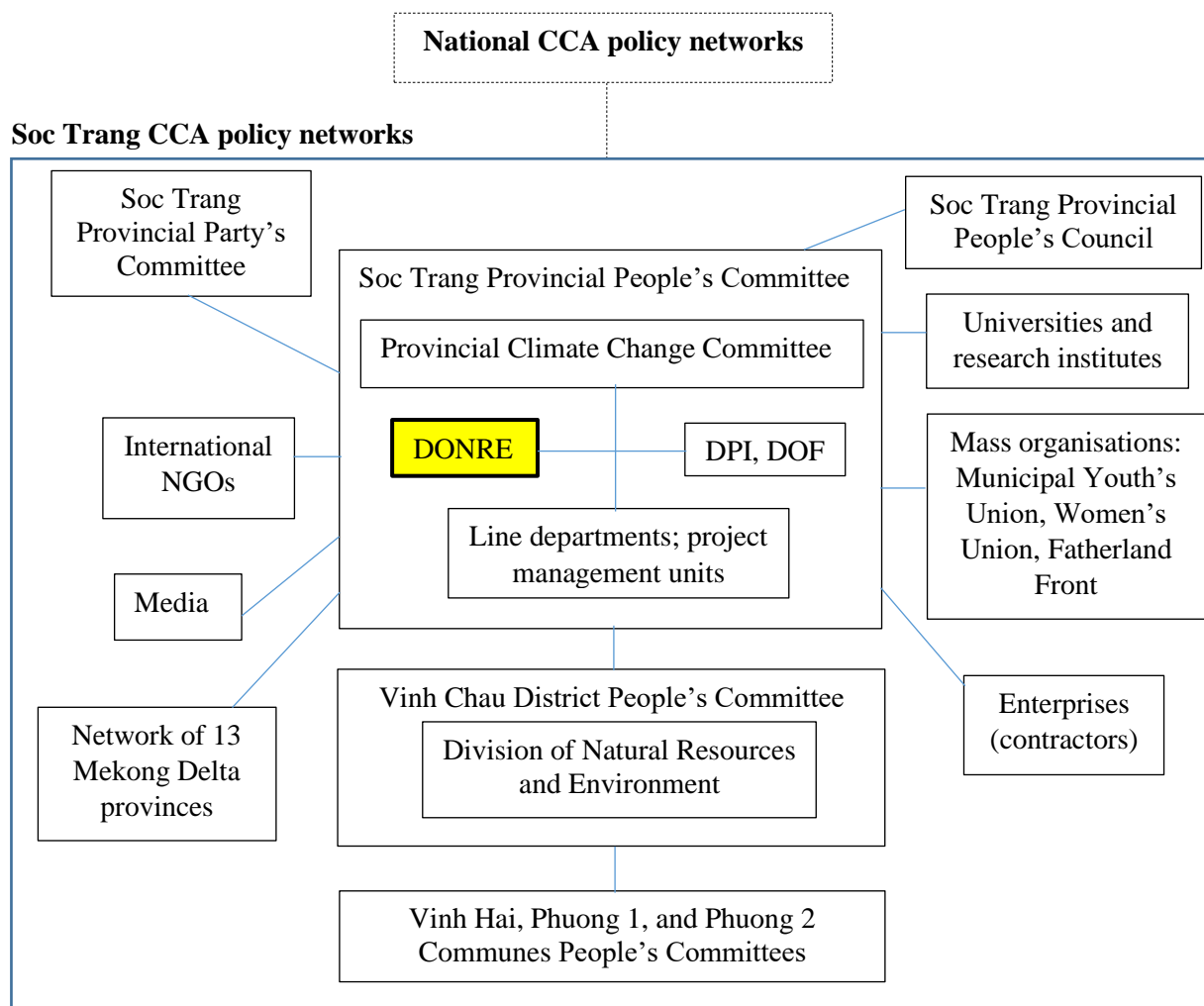


Figure 7.7: Soc Trang CCA policy networks (source: Author)

The Report 210/BC-UBND dated 27 October 2015 that the Soc Trang PPC submitted to the MONRE showed that there have been some NGOs which funded and/or conducted CCA related activities in Soc Trang such as GEF, IUCN, CARE Vietnam, AuAID, Vitens Evides International, GIZ, and Premier Oil (UK). Universities such as Can Tho University (Vietnam), Wageningen (Netherlands), and the National Economic University (Vietnam) have conducted research on climate change issues in Soc Trang province (Soc Trang PPC, 2015). The Women's Association of Vinh Chau (a mass organisation) executed a project funded by the GEF from 2015-2017 in Phuong 2 commune, Vinh Chau district. This project aimed to reduce adverse impacts of climate change and increase adaptive capacity to drought and salinisation of the shallot crop (Interviewee SD7).

In Plan 43/KH-UBND of Soc Trang province to implement the central government Resolution 120/NQ-CP, networking with other provinces in the Mekong Delta has been given priority by Soc Trang government. This however, remains an intention only as there was no evidence of the support/involvement of other provinces in the region in CCA policy-level actions and project-level activities of Soc Trang (Interviewee SP7).

7.3.6. Financing climate change adaptation

There are three main sources of funds for CCA policy implementation in Soc Trang: central budget through national programs; provincial budget; and international donors. Most funds to deliver CCA policy-level actions and project-level activities have been provided from the central budget, especially investment projects which require significant capital (Interviewees SP6, SP7, SP8). Within Soc Trang climate change funds have been allocated to the forest PMU (to implement three afforestation projects), PMU 2 (one construction project), and DONRE (four functional projects) (see table 7.6 in section 7.3.3). International funding was delivered through NGOs which directly managed their projects in cooperation with mass organisations and local communities (small scale and demonstration projects).

One of the main barriers to CCA policy implementation repeatedly mentioned by government officials in Soc Trang is a lack of funds. The implementation progress of planned CCA related projects in the province remains slow and ineffective due to limited local resources (Soc Trang PPC, 2015). An official working for DONRE emphasised:

Whatever you say, you cannot do anything without money (Interviewee SP7).

In Soc Trang, sectors and districts have proposed many CCA related projects seeking funds from the climate change source, however, owing to budget restrictions, only urgent ones have been selected (Interviewee SP7). DONRE, DPI, and DOF will appraise proposals of other departments and localities then submit to the Soc Trang PPC for approval. The PPC has to consult with the Provincial Party Committee and People's Council before making decisions. A number of provincial actors are involved in deciding an investment project. Note that although being approved by the provincial authority is the necessary condition, the sufficient condition is the approval by national authority (the MONRE, MPI, MOF and the Prime Minister) if the project is to be funded from central budget.

Similar to Hai Phong city, there is no separate budget line for climate change in Soc Trang province's budget system, however, the province has received funds within the frameworks of the NTP-RCC and SP-RCC (large scale projects). Other smaller scale projects have been funded by NGOs and recently (2018) from the province's own regular budget. The central funds play key roles for CCA policy-level actions and project-level activities in Soc Trang as the Soc Trang government mainly relies on central financial support to implement its provincial climate change plans. This dependence has made the provincial authority view climate change as a source of funds (Interviewee SP11).

Funding for the implementation of CCA actions is currently based on the state budget for the province. Currently, there is no legal framework for mobilising financial resources, especially from international climate funds (e.g. the GCF), and there are also other challenges in mobilising international and domestic investors. In addition, the annual budget allocation is currently distributed equally among

ministries and provinces (the TP-RCC-GG 2016-2020 allocated USD 70,000 (VND 1.6 billion) for each province), which is a comprehensive, but ineffective approach. This partly arises from Confucian ideology and the socialist regime which highlights equality in society. Regarding this ‘equality’ a representative from a development partner commented “[CCA policy] implementation must be more focused and selective, avoid equal investment. There should be priorities rather than balancing budget equally for 63 provinces” (Interviewee NS4).

The situation for CCA finance is serious in Vietnam as there is no regular budget allocated for CCA, as an interviewee commented:

Capacity is not available, staffing is not increased, funding either, if you want to do something, you must have authority and money. Neither power nor money, nor capacity. So it depends on the leadership of the province. The management mechanism for climate change in provinces is unclear. So these are difficult things. Local funding for climate change is almost nonexistent (Interviewee SN1).

Though adopting some plans in relation to climate change response, the political commitments of both Hai Phong and Soc Trang authorities to addressing climate change remain low. As a NGO respondent commented, if local authorities are willing to address climate change issues, they should have allocated funds from their own budgets for CCA activities (Interviewee NS1). Hai Phong and Soc Trang confront the dilemma of high public investment demand, but have low local resources, especially for Soc Trang where the central budget granted 70% of its investment capital (Interviewee SP11). The two localities have huge demand in public investment in education, healthcare, transport, and economic development; climate change is ranked low in the priority list. The common mindset of local governments is they will take CCA actions if funds are provided (Interviewees SN1, SN2). This explains the limited CCA policy-level actions and project-level activities in Hai Phong and Soc Trang. CCA has become a local government responsibility however, specific CCA project implementation depends on the availability of funds from national programs and international donors.

7.3.7. Reporting: Feedback mechanism

Under the NTP-RCC 2008, the Prime Minister requested provincial and district authorities to regularly report their implementation progress; specifically, the district level (the DIONRE) reports to the provincial level, and the provincial level (DONRE) reports to the MONRE at the national level. Information is then circulated to the NCCC and Prime Minister. However, in practice most reports were prepared by the provincial DONRE and information did not come from district level. As an official at provincial level noted, DONRE collected information from other departments, but did not request district and commune authorities to provide information (Interviewee SP8). In respect to communication for reporting CCA implementation, the district and commune levels were excluded. This is mainly because there was no CCA projects directly implemented by the two lowest

government levels in Soc Trang province.

According to a report that Soc Trang PPC submitted to the MONRE, the M&E of the NTP-RCC implementation were mainly conducted upon request and guidelines from the national authority. The provincial departments and localities have not proactively and regularly taken M&E activities (Soc Trang PPC, 2015). In Soc Trang, DONRE takes the lead of climate change administration, with the department delegating this function to the DWMMH, with only five officials of which one is responsible for climate change (Interviewee SP6). This official and the DWMMH administers climate change response for the entire province. Due to limited personnel, DONRE has been unable to conduct proper M&E and its reports have mainly been based on information provided by other provincial agencies without any verification mechanism (Interviewee SP6).

There is no regular reporting system from commune level to provincial level in relation to CCA policy implementation in Soc Trang. The reporting of the four investment projects under the SP-RCC is based on legislation on public investment management which applies for all types of investment projects from public budgets regardless of the sector (in accordance to Decree 84/2015/NĐ-CP by the GoV and ministerial Circular 22/2015/TT-BKHĐT by the MPI, see section 6.3.7). Investment projects in CCA are similar to those in education or tourism, where implementers (project owners) have to prepare regular reports to submit to relevant state management agencies. The problem is for example, all four investment projects in Soc Trang are under the administration of the agriculture sector because they relate to forestry and dyke management. The project owners/implementers report to the provincial DARD since agriculture administration is its mandate. The DARD then circulates information to the MARD at national level (the vertical silo effect), and information is only shared with DONRE at provincial and the MONRE at national level upon request (Interviewee SP6). All interviewed officials working for the Soc Trang DONRE noted that communication between the NRE sector and agriculture sector in relation to CCA policy and projects reporting is irregular, one or two times a year (6-month and end-year reports) (Interviewees SP6, SP7, SP8). The frequency of reporting is inadequate as is the quality of the reports, especially in the context of lacking specific M&E indicators (national government Interviewee SN9; NGOs Interviewee NS6; local Interviewee SP11).

Upon the MONRE's requests, Soc Trang submitted several reports to central government such as the Report 210/BC-UBND dated 27 October 2015 submitted to the MONRE on the implementation progress of the NTP-RCC during the period of 2010-2015; and the Report 241/BC-UBND dated 23 November 2017 submitted to the MONRE on the implementation progress of the Party's Resolution 24-NQ/TW. The contents of those reports provide insights into the perceptions of local authorities on climate change response as well as CCA implementation with their structure guided by the MONRE.

There is no available M&E mechanism that allows DONRE to monitor the work of the DARD in relation to CCA (Interviewee SP6).

The reports prepared by DONRE are desk-based, the Department does not have adequate capacity (personnel) and power (authority) to directly conduct M&E. We prepared reports based on information provided by relevant agencies, there is no mechanism to evaluate the accuracy of information (Interviewee SP6).

At the district level, there is no CCA implementation reporting mechanism, as a representative from the Vinh Chau Division of Natural Resources and Environment states:

In respect of climate change there is no report. There is no regulation on reporting. Guideline on what to be reported is also absent (Interviewee SD4).

This district official was not aware of the regulations on CCA M&E. In fact, reporting responsibility of district authorities was regulated in Decision 158/QĐ-TTg approving the NTP-RCC by the Prime Minister. However, since the Vinh Chau district has not actually prepared any climate change report, the official did not know about the existing regulation. Additionally, under the current formal reporting practice in Soc Trang, only agencies that implement projects funded from state budgets (the NTP-RCC, SP-RCC and local budget) have to report. Vinh Chau district did not have any climate change projects. Some climate change projects mentioned above (e.g. afforestation) were implemented in the Vinh Chau area but were ‘owned’ by provincial-level agencies.

7.4. Chapter Summary

CCA policy-level actions and project-level activities in Hai Phong and Soc Trang have largely depended on national programs and funds. If the GoV did not facilitate CCA process, local authorities would take little or no action, especially for project-level activities which require capital investment. In this regard, Phong (2016) found that the multi-level administrative structure in Vietnam is highly centralised, with local governments reliant on the central government for planning and budget allocation. The present research found that there are two essential factors influencing CCA policy implementation in coastal Vietnam: (1) duties and responsibilities (mandates); and (2) financial and human resources. CCA policy implementation at local level in coastal Vietnam is similar to other developing countries (Pasquini et al., 2013).

Local authorities have taken CCA actions and implemented projects because the national government requested and funded them to do so. The mindset of local officials is if higher authorities assign tasks, then they take actions. CCA is the external task assigned by higher-level authorities rather than the internal work of the locality. Hai Phong and Soc Trang have responded to climate change impacts at their localities and also to directions from central government, the latter being prevalent.

Government officials in both Hai Phong and Soc Trang referred to climate change in the context of natural disasters and sea level rise, which has led to a ‘hard’ adaptation bias by local authorities. Sea level rise has also been highlighted in the national climate change policies and information communications. This concern has been translated to the perceptions of local officials at all three

levels (provincial/municipal, district, and commune), e.g. some respondents stated that to combat the rising sea level, the sea dyke system must be upgraded (Interviewee SD1, Hai Phong; Interviewee SP13, Soc Trang).

There are too many plans in relation to climate change administration at both national and local levels while concrete CCA measures remain limited. In this regard, Benedikter (2016) discussed planning process in Vietnam as bureaucratic managerialism. State-directed planning has led to an abundance of planning documents and there is an exhaustive reporting and planning culture in state management of public issues in contemporary Vietnam. However, in respect to vertical flows of CCA policy, there are not many project-level activities at local levels. The actions/activities implemented by the NRE sector were mostly on policy-level actions (planning), and large scale CCA projects were delivered by the agriculture sector.

Actual implementation feedbacks were not from the ground (bottom-up), but from provincial/municipal level (middle-up), with the feedback mechanism happening between two levels: provincial and national. There were many ‘nos’ at commune level: no money; no staff; no activity; and no reporting.

Due to the irregular reporting basis, bureaucratic mechanisms, the absence of M&E indicators, the low quality of agency reports, and the silo effect, total CCA efforts by sectors and localities in Vietnam have not been stocktaked. Benedikter (2016) pointed out government reports and plans often have poor contents. There is insufficient evaluation of what has been done, while future plans remain vague. Reports appear to be mere rhetorical exercises aiming to create images of commitment and responsiveness. According to Biesbroek et al. (2018b) government reports focus on government-driven and planned adaptation, leaving less room for autonomous adaptation (e.g. by farmers and firms) thus creating a skewed picture of the type of adaptation taking place. It appears that CCA feedback from Hai Phong and Soc Trang is unable to help improve CCA policy implementation in coastal Vietnam.

However, it should be acknowledged that measuring and reporting CCA progress is very complex, and different from mitigation with clear indicators (e.g. tons of CO₂ reduced). It is difficult to know if countries and localities are effectively enhancing adaptive capacity, strengthening resilience and reducing climate change vulnerability (Article 7, PA). This task is challenging owing to the context-specific nature of CCA, not only with regard to the characteristics of vulnerable people and localities, but also in relation to how CCA is mainstreamed into current policies and programs (Lesnikowski et al. 2017). The question is how to recognise adaptations and report them when they do not ‘stand alone’ but are diffused in sectors such as water management, forestry and disaster management. This question will be further discussed in chapters eight and nine.

In Vietnam, there is a common understanding that policies are made by the central government and

ministries and that local authorities are policy implementers. However, this research found that many CCA policy-level actions and project-level activities were implemented at the national level by ministries (see chapter six). However, these actions and activities do not create actual outcomes and impacts on the ground, they are seen as the intermediate step, laying the foundation for the expected CCA implementation at the local level. Theoretically, climate change impacts are manifested at the local level, and adaptation measures would also be best implemented at this level. However, practice in Vietnam has revealed a different story. The collaboration between departments within Hai Phong city and Soc Trang province is problematic due to the silo effect. The problem at national level is mirrored at provincial and municipal levels. This is not unique to Vietnam, Pasquini et al. (2013) found similar barriers to CCA in South African cities.

The conceptual framework of the present research (chapter four) highlighted the vertical and horizontal dimensions of CCA policy implementation in Vietnam. Chapters six and seven have presented findings in relation to the vertical CCA policy implementation process, the next chapter will discuss the horizontal dimension and how CCA has been mainstreamed into some socio-economic sectors in coastal Vietnam.

CHAPTER 8:

HORIZONTAL CLIMATE CHANGE ADAPTATION POLICY IMPLEMENTATION

8.1. Introduction

The interaction between climate change policy and other policy domains in implementation is under-researched (Rykkja et al., 2014). Implementation of international and national climate change policies at the local level appears poor. Reasons include resource and capacity constraints, lack of political will, and insufficient mainstreaming into sectoral policies and projects (Keskitalo et al., 2016).

Chapters six and seven presented the vertical dimension of climate change adaptation (CCA) policy implementation, this chapter focuses on the horizontal dimension of CCA policy implementation and considers CCA in sectoral legislation, policies and planning processes (figure 8.1).

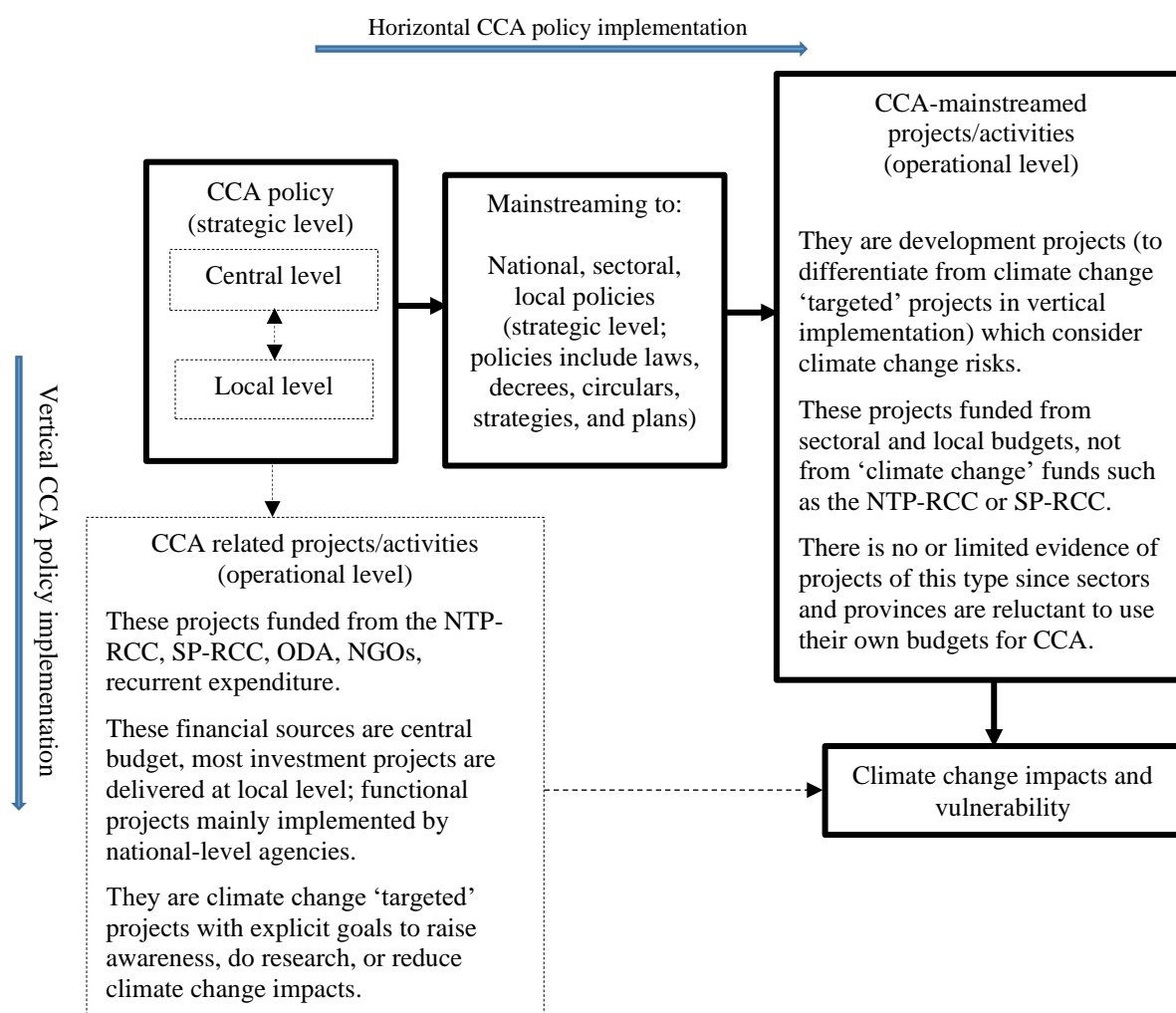


Figure 8.1: The vertical and horizontal flows of CCA policy implementation (source: Author)

The previous chapters discussed the roles and responsibilities of climate change policy community in CCA, this chapter focuses on the ‘move’ of the responsibilities to sectoral policy communities (Rhodes, 1990) such as the coastal management policy community (the Ministry of Natural Resources

and Environment (MONRE)), water policy community (the MONRE), forestry policy community (the Ministry of Agriculture and Rural Development (MARD)), disaster management policy community (the MARD), and the socio-economic development policy community (Ministry of Planning and Investment (MPI)).

In the present research, the mainstreaming process of CCA is termed horizontal CCA policy implementation or a sideways implementation mechanism. The evidence of CCA being mainstreamed into sectors includes: (1) sectoral policy documents having mentioned climate change issues; (2) sectoral development projects which considered future climate change (note that these projects are funded from sectors' own budgets or through Official Development Assistance (ODA), not from the national climate change programs noted in chapters six and seven); (3) new institutional arrangements; and (4) perceptions of sectoral government officials.

At the strategic/upstream level (policy-level actions), there was no legislation specifically on climate change or CCA taking effect in Vietnam from 2008-2018 but rather strategies and plans. This chapter reports legislation and policies in some sectors that relate to climate change, and perceptions of government and non-government officials on the issues of climate change mainstreaming.

8.2. Regulations and Guidelines

The regulations and guidelines on CCA mainstreaming provide an enabling environment which facilitates the mainstreaming of CCA to sectoral developments through different entry points (Pervin et al., 2013; Gogoi, Bahadur & del Rio, 2017). Mainstreaming requires coordination among multiple actors and processes, which can make the journey from a plan on paper, to action on the ground, slow (Mogelgaard, 2018). Therefore regulations and guidelines are important to intervene actors' actions on mainstreaming.

8.2.1. National regulations

Legislation mentioning mainstreaming

Currently in Vietnam there are three legal documents (laws) stipulating mainstreaming climate change issues into national, sectoral and local development strategies and plans. They were not designed to regulate climate change or CCA mainstreaming, however, some provisions in relation to mainstreaming have been included in these sectoral (non-climate) laws.

Law on environmental protection 2014

Though this Law is on environmental protection, climate change response is regulated in chapter four of which the Article 40 is specifically on climate change mainstreaming:

Article 40. Mainstreaming climate change response considerations into socio-economic

development strategies and plans

1. Climate change response issues must be included in strategies and plans for socio-economic development as well as sectoral development master plans, which are subject to strategic environmental assessment as prescribed in Article 13 of this Law.
2. The mainstreaming of climate change response into strategies, plans for socio-economic development, and sectoral development master plans must be based on assessment of correlation of activities described in strategies, plans with the environment, climate change; and propose measures to be taken for environmental protection and climate change response (*Law on environmental protection 2014*; author's translation).

Only socio-economic and sectoral development strategies and master plans which must conduct strategic environmental assessments (SEA) have to mainstream climate change considerations by law. In the 2013-2017 period, there were 110 strategies and master plans conducting SEAs (MONRE, 2018b).

SEA is used as a tool to enforce and appraise mainstreaming climate change considerations. Strategies and plans subjective to SEA are regulated in Article 13, *Law on environmental protection 2014*; a list of those strategies and plans is identified in the governmental Decree 18/2015/NĐ-CP adopted in 2015 (e.g. strategies and plans on social-economic development of provinces and strategies and plans on agriculture and forestry) (GoV, 2015a). Briefly, SEA concerns the analysis and projection of existing or potential impacts on the environment, which have been described in the development strategies, plans and proposals, in order to identify measures to control and reduce adverse environmental impacts. National, sectoral and regional development strategies and plans must undertake SEAs, which are appraised by functional government agencies (e.g. by the MONRE) before approval (e.g. by Prime Minister).

The *Law on environmental protection 2014* stipulates that for plans which SEAs are conducted, climate change considerations must be included in SEA reports. Making use of SEA, an existing tool in environment management for climate change, is new in Vietnam, however, it has been used in other countries for climate change or CCA mainstreaming (Islam & Zhang, 2019). In addition to using SEA to appraise CCA mainstreaming into development plans, environmental impact assessment (EIA) has also been used to monitor the inclusion of climate change into development projects, and regulatory impact assessment (RIA) to appraise the considerations of climate change issues in legislation (laws) (Mickwitz et al., 2009; Bhawe et al., 2016).

In Vietnam, RIA is required in the legislative formulation process, although climate change matters are not included. Key matters to be considered are social, economic, environmental, legal, gender, and administrative impacts and EIA tools (project level) are currently not employed for climate change mainstreaming, but SEA (strategy/plan level) is (Knaepen, 2013).

Law on meteorology and hydrology 2015

Article 37 of the *Law on meteorology and hydrology 2015* regulates the mainstreaming of results of climate change monitoring into development strategies and plans. The results include: historic and future information and data on hydrology and meteorology; impacts of hydrological and meteorological disasters and climate change on natural resources, the environment, ecosystems, and socio-economic activities; greenhouse gases (GHGs) emissions; and climate change scenarios:

1. Issues to be mainstreamed: hydro-meteorological, climate change monitoring information, data to assess natural conditions, environment in the area for which the strategy/plan is made; analysis and assessment of manifestations of climate change and its impacts on natural disasters, natural resources, the environment, ecosystems, living conditions, socio-economic activities and inter-sectoral, inter-regional matters to determine long-term objectives of the strategy and plan; analysis and assessment of climate change response measures to determine socio-economic objectives of the strategy and plan.
2. Types of strategy and plan must conduct mainstreaming: the strategies and plans which are subject to strategic environmental assessment should mainstream results of climate change monitoring and climate change response measures as prescribed hereof and in accordance to environmental protection legislation.
3. Appraising mainstreaming: the appraisal of mainstreaming of climate change monitoring results into the strategies and plans should be carried out simultaneously with the appraisal of the strategic environmental assessment reports according to environmental protection legislation (*Law on meteorology and hydrology 2015*; author's translation).

The *Law on meteorology and hydrology 2015* essentially requires that socio-economic and sectoral development strategies and plans which are subject to SEA must mainstream hydrology, meteorology, and climate change information and data.

Law on planning 2017

This law stipulates the procedures for developing, appraising, adopting, publishing, implementing, evaluating, and revising (master) plans within the state planning system. There are two main types of planning documents in Vietnam: master plans (long-term, time horizon of ten years or over; *quy hoạch*); and plans (*kế hoạch*) including five-year plans (medium-term) and annual plans (short-term) (Benedikter, 2016).

The term 'climate change' (*biến đổi khí hậu*) was used 13 times in the law's text. For example in: Paragraph 2, Article 3 (defining a national master plan); Paragraph 2, Article 10 (policies of the state for planning); and Paragraph 1, Article 21 (contents of a plan). Climate change responses are mandated as a

content of any master plan. In May 2019, the Government of Vietnam (GoV) adopted Decree 37/2019/NĐ-CP guiding the implementation/enforcement of the *Law on planning 2017*. In this Decree, the term ‘climate change’ was used 76 times. The contents of national, regional, provincial, and sectoral master plans must include climate change considerations (impacts assessment and response measures).

The above are non-climate laws, climate change mainstreaming is not the main issue in this legislation. In this regard, one can claim that climate change considerations have been mainstreamed into sectoral laws and regulation in Vietnam.

Although there exists legal regulations on mainstreaming climate change as well as CCA into socio-economic and sectoral development plans (long-term and medium-term), national government officials working for the MONRE in the climate change sector reported the absence of mainstreaming legislation (Interviewees SN1, SN2). NGOs were also not aware of these legal regulations (Interviewees NS1, NS3). National level respondents all referred to technical guidelines introduced by research institutes within the MONRE or NGOs (e.g. UNDP, Oxfam and Care). However, a representative for the MARD mentioned the *Law on environmental protection 2014* (Interviewee SN10); and provincial government officials were aware of the use of SEA for CCA mainstreaming (Interviewee SP8, Soc Trang province). All provincial respondents reported the inclusion of climate change as well as CCA considerations in socio-economic and sectoral development plans (Interviewees SP1, SP2 in Hai Phong; SP6, SP7, SP8 in Soc Trang) (see section 8.5).

In addition to the three laws, there are three ministerial circulars mentioning the mainstreaming of climate change as well as CCA considerations into socio-economic and sectoral development plans. In the Vietnamese legal system, circulars are legal documents (the hierarchy of the regulatory system is law, decree, and circular; the latter guides the implementation/enforcement of the former) (*Law on promulgation of legal document 2015*).

Circular 08/2016/TT-BNTMT by Minister of Natural Resources and Environment

Climate change mainstreaming is mentioned in Circular 08/2016/TT-BTNMT issued by the MONRE in 2016 (in Article 6). This Circular regulates government agencies to use SEA as a tool for mainstreaming management. SEA appraisal by government agencies serves as a ‘gatekeeper’ for climate change inclusion in new development master plans. According to Article 6, developers have to conduct assessments of adaptation measures in strategies and plans, including advantages, disadvantages, causes and solutions, and prepare assessment reports. Article 7 states that agencies responsible for plans which are subject to SEA must assess the impacts of climate change and the results must be presented in SEA reports for appraisal by relevant authorities.

Circular 05/2016/TT-BKHĐT by Minister of Planning and Investment

In 2016, the MPI issued Circular 05/2016/TT-BKHĐT on mainstreaming disaster risk reduction

(DRR) into socio-economic development plans (SEDPs). The main contents of this legal document are about mainstreaming DRR into sectoral and socio-economic development plans although it also mentions CCA mainstreaming. The term ‘climate change’ was used 12 times in the Circular’s text, mostly in Article 4 on mainstreaming procedure.

Circular 27/2015/TT-BTNMT by Minister of Natural Resources and Environment

This Circular was introduced by the MONRE in 2015, regulating on environmental impact assessment (EIA) and strategic environmental assessment (SEA). It is therefore a legal document in environmental protection sector. Though the term ‘climate change’ (*biến đổi khí hậu*) occurred 15 times in this Circular, the consideration of climate change issues including CCA mainstreaming is not regulated in the main text of the Circular but in Appendix 1.3 - the structure and content of a SEA report. As mentioned above (*Law on Environmental Protection 2014*), SEA has been used by the GoV as a tool for CCA mainstreaming but at upstream level (policy-level actions).

Neither of the three ministerial circulars identifies specific CCA mainstreaming steps. The three laws and three circulars therefore remain insufficient for ministries and localities to perform proper CCA mainstreaming in practice. Most interviewees reported a lack of a workable, formal, mainstreaming procedure. In fact, when being asked about mainstreaming regulations, none of the research participants mentioned the three circulars. One of the reasons could be these legal documents were not designed for CCA mainstreaming but climate change impact assessment (Circular 08/2016/TT-BTNMT), DRR (Circular 05/2016/TT-BKHĐT), and environmental protection (Circular 27/2015/TT-BTNMT).

Climate change policies requesting mainstreaming

In addition to the ‘hard’ regulations above, the main climate change policy documents (the NTP-RCC 2008, NCCS 2011, and Resolution 24-NQ/TW 2013) all mention the issue of CCA mainstreaming (‘soft’ regulations). If climate change is to be mainstreamed into sectoral policies, climate change policy documents should state the requirement clearly. In this regard, Klein et al. (2005) state that one of the roles of climate change policy per se is to facilitate mainstreaming and implementation of CCA as part of sectoral policies.

One of the main tasks specified in the Communist Party of Vietnam’s (CPV) Resolution 24 is to mainstream the objectives of responding to climate change, managing natural resources and protecting the environment into sectoral and socio-economic development plans (CPV, 2013). The NTP-RCC has eight objectives, the seventh is on mainstreaming climate change issues into socio-economic, sectoral and local development strategies and plans (GoV, 2008).

Of the ten strategic solutions of the NCCS 2011, the sixth solution mentions mainstreaming, specifically reviewing and revising the existing socio-economic development strategies and plans of ministries and localities on the basis of science, economic efficiency and taking into account risks and uncertainties of

climate change and sea level rise. The revised strategies and plans should have been promulgated by 2015. Mainstreaming climate change issues into new regional and local socio-economic development plans; revising, supplementing and finalising technical standards and norms on designing construction and infrastructure works based on climate change scenarios; and developing sustainable, climate-resilience economic zones by 2030 (GoV, 2011a).

There has been evidence of political interest on mainstreaming CCA into development. In order to facilitate mainstreaming in a hierarchical governance system like Vietnam, the central government may require relevant regulations at an upstream level. Mainstreaming regulations in Vietnam, however, are in the form of general statements rather than specific guidelines. Most government officials reported that a lack of know-how hindered mainstreaming in practice (Interviewees NS3, NS7, SN2, SP2, SP6) with the enforcement of the above legislation and regulations remaining problematic. At the local level, the response to climate change is not really linked to development policies, strategies and plans (MONRE, 2017b) with mainstreaming efforts by sectoral and local authorities appearing to be symbolic.

8.2.2. Ministerial guidelines

In addition to the ‘hard’ and ‘soft’ regulations above, the MPI, MARD, and MONRE have developed technical guidelines for climate change mainstreaming. In 2013 the MPI issued a framework for guiding CCA priorities in socio-economic development planning (Decision 1485/QĐ-BKHDT). The framework was designed to assist ministries and localities in identifying and integrating priority investments in CCA into socio-economic development planning. In 2011, the MARD introduced a ministerial Directive 809/CT-BNN-KHCN on mainstreaming climate change into the formulation and implementation of strategies, plans, programs and projects of the agriculture and rural development sector. The main contents of this directive are on areas to be mainstreamed (e.g. agriculture, forestry and irrigation areas) and how to mainstream (procedural steps). In 2012, the MONRE published a technical guideline on mainstreaming climate change issues into development plans and proposed a procedure of five mainstreaming steps: screening climate change impacts on sectors’ identifying and selecting response measures; mainstreaming measures into plans; implementing mainstreamed plans; and monitoring and evaluation (MONRE, 2012b).

As development planning management is the official mandate of the MPI, the Prime Minister assigned the MPI the lead role in guiding and coordinating CCA mainstreaming into socio-economic and sectoral development plans. However, the MPI has underperformed on this task (Interviewees SN1, SN2). Therefore, the MONRE took action, leading to the introduction of some technical guidelines on climate change mainstreaming. A government official in the MONRE stated that because CCA mainstreaming is the duty of the MPI, the MONRE could not issue a regulation but instead termed a mainstreaming document as a technical guideline (Interviewee SN1). However, according to senior government officials at national level, the technical guidelines on mainstreaming are not workable (Interviewees SN2, SN8). The contemporary administrative system in Vietnam is highly bureaucratic, government agencies only

take actions according to their official mandates and perform their duties based on formal procedures. In this regard, a university lecturer and researcher emphasised that there must be legal regulations and formal institutions on mainstreaming to facilitate relevant actions (Interviewee NS7). The existing sectoral legislation (with general statements on mainstreaming), ministerial guidelines and institutional arrangements for CCA mainstreaming appear inadequate to trigger action on the ground.

The above are the regulations and guidelines by the central authorities in relation to the considerations of climate change issues as well as CCA in national, sectoral and local development planning processes and provide the enabling environment for mainstreaming (Pervin et al., 2013; Gogoi et al., 2017). The following sections note the entry points and evidence of mainstreaming CCA in Vietnam, Hai Phong city, and Soc Trang province.

8.3. National Level

8.3.1. Political wills

The Communist Party of Vietnam (CPV) is concerned about climate change impacts. The political commitments in relation to considering climate change issues in socio-economic and sectoral development at all levels have been reflected in the National Socio-Economic Development Strategy (SEDS) in 2011, *Constitution of the Socialist Republic of Vietnam 2013*, and Resolution 24-NQ/TW 2013. The SEDS and Constitution do not explicitly mention CCA mainstreaming. However, the inclusion of the term ‘climate change’ in their texts is direction for all sectors and localities to consider climate change issues when formulating and implementing public policies. In Vietnam’s politics, the Party’s political decisions are often institutionalised by the National Assembly (NA) and GoV into state policies. CPV is a powerful policy actor in Vietnam and its decisions play an important role in facilitating CCA governance at all levels and sectors.

Article 63 of the Constitution 2013 stipulates that the State issues policies to protect the environment; manage and use natural resources; protect nature and biodiversity; takes initiative in prevention and resistance against natural calamities; and responds to climate change. The Constitution is the fundamental law in Vietnam, laying the foundation for the promulgation of laws, ordinances, resolutions and other legal documents in the Vietnamese legal system. The inclusion of climate change into the Constitution 2013 is due to the rise of climate change in the national policy agenda since 2008. The previous version of the Constitution in 1992 did not mention climate change. Having climate change mentioned in the current Constitution is seen as a ‘success’ of the MONRE.

Since the introduction of the CPV’s Resolution 24-NQ/TW in 2013, a number of the Party’s policy decisions have included climate change considerations. For example, in 2016, the Politburo adopted Resolution 07-NQ/TW on strategic direction, solutions to restructuring state budget, and public debt management to ensure a safe and sustainable national financial system (CPV, 2016). This is not Party policy on climate change but state budget management, however, the issue of climate change response

has been raised. Climate change has become a permanent concern of the political leaders of the CPV. The realisation of CCA policies greatly depends on the investment on CCA related projects and the inclusion of climate change response objectives in budget management direction shows a high level of awareness of Vietnamese politicians on climate change. In principle, the NA, GoV and its ministries and provinces have to take follow-up actions to institutionalise the Party's directions.

The CPV adopted the SEDS for the 2011-2020 period in 2011. Besides other 'traditional' issues such as environment protection, and disaster management, the CPV highlighted climate change response as a task in socio-economic development for 2011-2020. This political policy document was introduced before the Party's Resolution 24-NQ/TW in 2013 which directly targeted climate change. The issue of climate change was circulated within the CPV before 2013. Indeed, the CPV mentioned climate change in its Directive 36/1998/CT-TW in 1998 on strengthening environmental protection in the period of industrialisation and modernisation of the country, and pointed out that global environmental issues, such as climate change, sea level rise, and cross-border pollution had adversely impacted the environment. In 2004, the Party Central Committee issued Resolution 41-NQ/TW on environmental protection in the period of accelerating industrialisation and modernisation in the country, in which the party re-affirmed the need for climate change response by directing the tasks of actively contributing to reducing the impacts of global climate change. According to Nhan (2016), the CPV's awareness and concern on climate change response have led to considerations of climate change in socio-economic and sectoral development planning and implementation in Vietnam. As reported in chapters six and seven, ministries and provinces responded quickly to any Party resolutions or directives, concretising central political intentions into their own plans. Note that chapter two argues that policy implementation is also the translation of general policies (political decisions) to specific policies (sectoral and local decisions).

8.3.2. Vietnam Agenda 21

The linkage between CCA and sustainable development is particularly relevant when seeking to improve the capacity of developing countries to adapt to climate change (Klein et al., 2005; Bizikova, Robinson & Cohen, 2007; Buch-Hansen et al., 2013). At the UN sustainable development Summit in 2015, 193 countries accepted and adopted the 2030 Agenda for Sustainable Development (Global 2030 Agenda) with 17 sustainable development goals (SDGs) identified including goal 13 on climate action, taking urgent action to combat climate change and its impacts. All countries committed to implement the Global 2030 Agenda and the 17 SDGs from 2015-2030 (in the 2000-2015 period, countries targeted the eight Millennium Development Goals (MDGs)).

In order to fulfil Vietnam's sustainability commitments, the Prime Minister approved three national strategies relating to sustainable development: (1) the Vietnam Agenda 21 under Decision 153/QĐ-TTg in 2004; (2) the sustainable development strategy for Vietnam from 2011-2020 under Decision 432/QĐ-TTg in 2012; and (3), the most recent and relevant one, the national Plan to implement the

Global 2030 Agenda under Decision 622/QĐ-TTg in 2017. All three documents mention climate change impacts and response solutions with the recent national Action Plan (2017) having more climate change contents mainstreamed. Similar to the 2030 Agenda, the national Plan of Vietnam has 17 national SDGs, and goal 13 is to proactively and effectively respond to climate change and disasters. The MPI developed the three sustainable development strategies and submitted to the Prime Minister for approval.

The strategic orientation for sustainable development in Vietnam (Vietnam Agenda 21) (Decision 153/QĐ-TTg in 2004)

The term ‘climate change’ occurred six times in the Vietnam Agenda 21. One of the prioritised tasks is mitigation of climate change and reduction of adverse impacts of climate change to contribute to disaster prevention and control. Since 2004, the GoV has recognised that climate change on a global scale due to human activities have been negatively impacting many areas of socio-economic development and environmental protection.

Vietnam sustainable development Strategy 2011-2020 (Decision 432/QĐ-TTg in 2012)

The term ‘climate change’ appeared nine times in this strategy. One of the specific objectives is to reduce the impacts of disasters and proactively and effectively adapt to climate change, especially sea level rise. Directions towards sustainable development in 2011-2020 in relation to climate change include: developing and strengthening adaptive capacity of human and natural systems to protect natural resources in the context of climate change and improve the quality of life, ensuring environment security and sustainable development; developing monitoring systems for climate change and sea level rise; modernising the monitoring system and hydro-meteorological forecasting technology to ensure early warning of extreme weather events; and implementing the NCCS 2011; raising awareness, responsibility and capacity for responding to climate change and disaster prevention among stakeholders; strengthening scientific and technological activities, organisational and institutional capacity; developing policies and human resources to actively respond to disasters and reduce the impacts of climate change related disasters (GoV, 2012f). This document refers to the implementation of the NCCS adopted in 2011, showing evidence of coherence between climate change and sustainable development policies.

National Action Plan to implement the Global 2030 Agenda for sustainable development (Decision 622/QĐ-TTg in 2017)

This national plan was adopted to implement the 2015 Global 2030 Agenda, and has one goal on climate change - goal 13: “Effectively respond to climate change and natural disasters” (GoV, 2017c, p.3). Similar to the Global Agenda, there are 17 goals in this national plan, which is further defined into three objectives: strengthening the resilience and adaptability to climate change-related hazards, responding to disasters and other natural catastrophes; mainstreaming climate change considerations

into development policies, strategies, master plans and plans; and educating, raising awareness, capacity and institutions in early warning, climate change response and reducing disaster risks (GoV, 2017c). Vietnam's sustainable development plan therefore interpreted the climate change goal of the Global Agenda to the Vietnamese context.

In the national sustainable development strategies, climate change has been taken into account however, it has been framed as an environmental issue and closely linked to disaster risk management, responding to weather extremes and climate variability rather than long-term climate change.

8.3.3. The five-year socio-economic development plan

There are two main types of SEDPs in Vietnam: five-year plans (medium term); and annual plans (short term). A SEDP is an economic management tool of the state, identifying objectives to be realised within a specified period of time for the whole country or a locality, and solutions and policies to effectively achieve them. Five-year and annual SEDPs are developed and implemented at all four government levels: national; provincial; district; and commune. However, communal authorities, the lowest level, only prepare an annual SEDP (Tan, 2015).

In the 2008-2018 period, three SEDPs (2006-2010; 2011-2015; 2016-2020) were developed and issued by the state. At a higher level of authority, the CPV also issued its policy in 2011, which is the SEDP for 2011-2020 with climate change issues also incorporated in this party policy document (see section 8.3.1).

Some interviewees stated that mainstreaming CCA into socio-economic development plans is more important than into sectoral plans since the SEDPs lay foundations for other types of plans (Interviewees NS7, SN8). Mainstreaming climate change as well as CCA into national SEDPs is regarded as important because sectoral and local SEDPs are based on the national SEDP (Interviewee NS7).

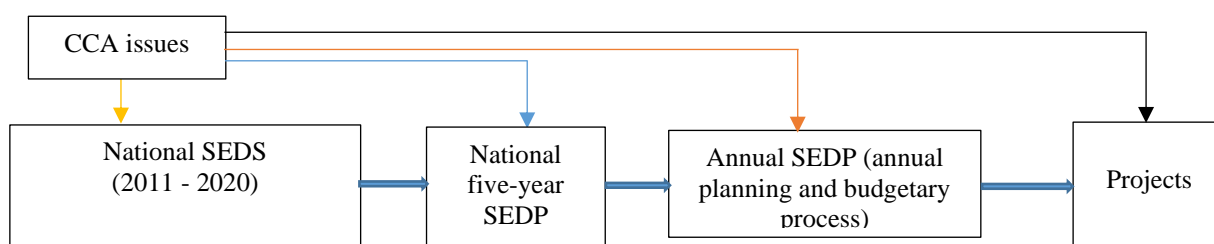


Figure 8.2: Different entry points for CCA mainstreaming within the SEDP process
(source: Author)

Ideally, CCA can be systematically mainstreamed into national socio-economic development strategy, then the five-year plan, annual plan and lastly into specific projects (figure 8.2). However, in practice CCA can be mainstreamed into any of the four 'entry points', although CCA mainstreaming does not necessarily follow a set of sequential steps (Pervin et al., 2013).

The 2006-2010 Socio-economic Development Plan (SEDP)

The term ‘climate change’ was not used in the SEDP in this period, the Plan was passed by the NA under Resolution 56/2006/QH11 in June 2006. However, climate change was not in the state policy agenda at that time, though there were some government documents referring to climate change such as the Prime Minister’s Decision 153/QĐ-TTg in 2004 approving the Vietnam Agenda 21 (see above). Only after the introduction of the NTP-RCC in December 2008, did climate change become a widely noted policy issue (Zimmer et al., 2015).

The 2011-2015 Socio-economic Development Plan

The national 2011-2015 SEDP was developed and adopted in 2011. The term ‘climate change’ was used only once in the Resolution 10/2011/QH13 of the NA passing the Plan. The text segment which mentioned climate change is: “Ensuring the area of rice cultivation of 3,812 million ha, developing specific mechanisms and policies to support localities and rice farmers to ensure national food security, especially in the face of climate change impacts and sea level rise for delta provinces, including the Mekong River Delta” (NA, 2011b). The concern of climate change impacts was linked to food security in the agriculture sector. This was also the period in which climate change policies have been extensively institutionalised (Interviewee SN2) with the introduction of the NCCS in 2011, the National Action Plan to implement the NCCS in 2012, the CPV’s Resolution 24, and the establishment of the National Climate Change Committee (NCCC), however, the issue of CCA mainstreaming into socio-economic and sectoral development policies was not given priority.

The 2016-2020 Socio-economic Development Plan

The 2016-2020 SEDP was passed by the NA under Resolution 142/2016/QH13 in April 2016, with the term ‘climate change’ being used five times in this document. The plan identified ten major tasks and solutions to achieve socio-economic development objects set for the 2016-2020 period. Of the ten, one is on proactively responding to climate change, preventing and controlling natural disasters, and strengthening natural resources management and environmental protection. In non-climate policy documents (e.g. economic development strategies and plans), if climate change is mentioned, it is often placed alongside ‘disaster management and environment protection’.

Table 8.1: The extent of climate change concern in the 5-year national SEDP over time

National SEDP	2006-2010	2011-2015	2016-2020
Frequency of the term ‘climate change’	0	1	5

Source: Author compiled from central government documents

To implement the NA’s Resolution, the GoV issued an Action Plan to implement Resolution

142/2016/QH13 under governmental Resolution 63/NQ-CP in July 2016, which is the basis for ministries and provinces to develop and issue their own SEDPs. In Resolution 63/NQ-CP, the GoV assigned its ministries' climate change related tasks in line with their mandates. For example, the MONRE was responsible for developing a national plan to implement the PA by 2016 (accomplished), and the national adaptation plan (on-going). The MPI was tasked with developing a scheme on restructuring the economy for the Mekong River Delta to adapt to climate change (on-going).

The MPI is the lead government agency responsible for coordinating SEDP formulation and implementation. This is why in the national climate change policies, the GoV assigned the MPI as the lead agency for administering climate change mainstreaming into socio-economic development. The key national socio-economic development policies (5-year SEDP, 10-year Strategy) require the considerations of climate change as well as CCA in development. Ministries and provinces in formulating and implementing their SEDPs must elaborate the national SEDP objectives and contents including those relating to climate change. Additionally, mainstreaming has been legalised according to the *Law on environment protection 2014*, *Law on meteorology and hydrology 2015*, *Law on planning 2017*, and Circular 08/2016/TT-BTNMT of the MONRE.

Climate change (adaptation) policy per se and related sectoral legislation and policies regulate the issue of climate change mainstreaming into socio-economic and sectoral development plans. Policy document analysis and interviews of government officials showed that this government requirement has been met to some extent. It is reflected in some of the adopted sectoral development policies and the awareness of officials on the issue of mainstreaming. There was also evidence of mainstreaming CCA into annual planning and budgeting processes, which is presented in the next section.

8.3.4. The annual planning and budgeting process

To achieve sustainable development, CCA principles and objectives have to incorporate day-to-day planning and decision-making processes (Vogel & Henstra, 2015). Indeed, the annual planning and budgeting cycles are actually about arranging funds for implementation of specific projects in all sectors from education to tourism, irrigation and CCA.

Annually, in May or early June, the Prime Minister of Vietnam issues a directive requesting ministries and localities to develop plans and budget estimates for the following year. After the Prime Minister's order, the MPI circulates a guiding framework to ministries and localities for elaboration of their planning and budgeting (MPI, 2013). For example, in May 2018, the Prime Minister signed Directive 13/CT-TTg requesting ministries and provinces to develop their 2019 SEDPs. Consequently, in June 2018, the MPI issued Letter 4028/BKHĐT-TH guiding the preparation of sectoral and local 2019 SEDPs. Theoretically CCA considerations can be mainstreamed into this annual planning and budgeting cycle, through which specific projects will be funded for implementation. The annual SEDP

or planning and budgeting is an essential entry point for CCA mainstreaming at the operational level which leads to actual outcomes.

Reviewing the Prime Minister's directives from 2008 to 2018 showed that climate change was mentioned, especially from 2010. Before that climate change appeared only once in each document, and the term used was 'climate fluctuation' (*biến động khí hậu*) rather than 'climate change' (*biến đổi khí hậu*). Since 2010, the term 'climate fluctuation' has not been used in formal government documents, but 'climate change' has.

Table 8.2: The considerations of climate change in the Prime Minister's directives on annual socio-economic development over the 2008-2018 period

Year of plan	Directive of the Prime Minister (and date of issuance, the date is in the year prior to the actual fiscal and planning year)	Frequency of 'climate change' term (<i>biến đổi khí hậu</i>)	Description ('places' climate change was mentioned)
2009	723/CT-TTg, 6/6/2008	1	Impacts of climate change on environment. The term used was <i>biến động khí hậu</i> literally meaning 'climate fluctuation'.
2010	756/CT-TTg, 5/6/2009	1	Impacts of climate change on environment. The term used was <i>biến động khí hậu</i> . The same paragraph which contained the term <i>biến động khí hậu</i> repeatedly used in two documents in 2008 and 2009.
2011	854/CT-TTg, 11/6/2010	3	From 2010, the term 'climate change' consistently used in government documents. ODA projects disbursement in relation to climate change. Developing action plan to respond to climate change.
2012	922/CT-TTg, 15/6/2011	3	NTP-RCC implementation. Linking socio-economic development with climate change response. Implementing international commitment. Implementing climate change and sea level rise action plan.
2013	19/CT-TTg, 18/6/2012	3	Action plan. International commitment.
2014	13/CT-TTg, 25/6/2013	6	Implementing the Party's Resolution 24. Implementing the the NCCS. ODA for climate change (SP-RCC).
2015	14/CT-TTg, 14/6/2014	7	Implementing the Party's Resolution 24. Mainstreaming to development. ODA for climate change (SP-RCC).
2016	11/CT-TTg, 29/5/2015	1	Proactively responding to climate change,

Year of plan	Directive of the Prime Minister (and date of issuance, the date is in the year prior to the actual fiscal and planning year)	Frequency of 'climate change' term (<i>biến đổi khí hậu</i>)	Description ('places' climate change was mentioned)
			mentioned in the section on direction and task of socio-economic development in 2016. Climate change was placed alongside disaster management in one sentence.
2017	21/CT-TTg, 2/6/2016	8	Overall objective. Adaptation infrastructure. Implementing PA. TP-RCC-GG. Investing in climate change response from local budget (lottery revenue).
2018	29/CT-TTg, 5/7/2017	5	Overall objective. Investment in climate change response. Allocating local budget for climate change response (from lottery revenue).
2019	13/CT-TTg, 24/5/2018	5	Implementing the TP-RCC-GG. Implementing Resolution 120 in the Mekong Delta. Allocating local budget for climate change response (from lottery revenue).

Source: Author compiled from central government documents

In line with the PM's direction on developing annual SEDPs, according to its mandate, the MPI issued guidelines for ministries and localities to develop their plans. The MPI's guidelines were the elaboration of the Prime Minister's directives. Since climate change response was mentioned in the Prime Minister's documents (table 8.2), the MPI also included climate change considerations when guiding government agencies to prepare their annual plans. Table 8.3 lists nine documents issued by the MPI in nine years from 2010 to 2018, all mentioning the issue of climate change in socio-economic development planning.

Table 8.3: The considerations of climate change in the MPI's annual planning guidelines in the 2010-2018 period

Year of plan	MPI's guideline and date of issuance	Frequency of 'climate change' term (<i>biến đổi khí hậu</i>)
2009-2010	No data found.	
2011	4227/BKH-TH, 23/6/2010	4
2012	4106/BKHĐT-TH, 24/6/2011	7
2013	4723/BKHĐT-TH, 29/6/2012	6
2014	4480/BKHĐT-TH, 28/6/2013	9
2015	3978/BKHĐT-TH, 24/6/2014	10

2016	786/BKHĐT-TH, 15/6/2015	7
2017	4333/BKHĐT-TH, 6/6/2016	17
2018	5610/BKHĐT-TH, 11/7/2017	5
2019	4028/BKHĐT-TH, 14/6/2018	1

Source: Author compiled from ministerial documents

From the Prime Minister's directions to the MPI's guidelines, climate change had been a concern in socio-economic development planning during the 2010-2018 period. This is the basis for ministries and localities to mainstream CCA into their annual plans. However, these are general guidelines and executive orders rather than legal requirements.

Mainstreaming CCA into the annual SEDP planning and budgeting cycle is important since it gives CCAs finance for implementation. As an interviewee at national level (university) noted:

If you don't mainstream [climate change] into the annual socio-economic development plan, you have no funds. There were some [climate change] activities funded from irregular sources [ODAs, national programs] however, if you expect regular funding then you have to incorporate [climate change] in the annual planning and budgeting cycle. The core plan is the socio-economic plan then sectoral and local plans (Interviewee NS7).

A representative from the MPI shared a similar perspective that CCA should be mainstreamed into annual SEDP planning for funding (Interviewee SN8). The MPI official emphasised that the mainstreaming process must result in a list of investment priority projects. This is because the state budget is allocated through specific projects. In this regard, Hoa (2016) argues that policy implementation is the delivery of projects on the ground. The evidence of mainstreaming CCA into project-level activities is reported in section 8.6.

Reality shows that there is a huge gap between the objectives and projects planned in climate change strategies and action plans and the implementation of these objectives and projects through SEDPs in each specific period. The financial resources in a socio-economic development period are often unable to meet demand, while there are many other urgent needs such as education, healthcare and disaster management (MPI, 2013). This has led to the absence of the CCA related projects in sectors and localities' annual SEDPs.

A problem with the annual SEDP is the temporal scale which clashes with long-term CCA planning (Urwin & Jordan, 2008). However, the changes in planning process in Vietnam in recent years have been in favour of CCA planning, since the 2016-2020 planning period, the GoV has employed medium-term investment planning. Accordingly, ministries and provinces have to develop their 5-year public investment plans in which they identify specific projects to be implemented in the future.

8.4. Sectoral Level

Climate change policy alone will not be able to secure climate change policy objectives, therefore each policy sector must take on board such objectives if they are to be achieved (Urwin & Jordan, 2008). This section presents the evidence of mainstreaming CCA into policies and legislation of four sectors. As discussed in the introduction section of this chapter, CCA mainstreaming evidence is reflected through inclusion of climate change related terms into sectoral policies, adding climate change mandate into sectoral management bodies or establishing a new body working on climate change, and perceptions of sectoral government officials on climate change issues. However, there was no evidence that other sectors used their own budgets for CCA projects, the mainstreaming of CCA to sectoral policies mainly occurs at policy-level actions though remains limited.

8.4.1. Disaster management

In Vietnam, disaster risk management is under the administration of the MARD (GoV, 2017d). Lying in the disaster-prone region of Asia (especially typhoons), Vietnam has adopted legislation and policies on disaster risk management (To & Kato, 2018). This section reports the extent of consideration of CCA in key disaster management policy documents.

Law on disaster prevention and control 2013

This Law was passed by the NA in June 2013 (Law 33/2013/QH13). It stipulates disaster prevention and control activities; specifies the rights and obligations of agencies, organisations, households and individuals engaged in DRR activities; and details the public management of, and assurance of resources for, disaster prevention and control (*Law on disaster prevention and control 2013*).

The term ‘climate change’ (*biến đổi khí hậu*) appeared five times in the law’s text. Article 4 stipulates the basic principles in disaster prevention, stating that disaster risk reduction (DRR) must be linked with CCA. According to Article 15, the contents of national, ministerial, and provincial DRR plans must identify and assess impacts of climate change. This highest level of DRR legislation has stipulated the inclusion of climate change issues in DRR planning at all administrative levels.

National Strategy for disaster prevention and mitigation towards 2020

This strategy was approved by the Prime Minister under Decision 172/2007/QĐ-TTg in November 2007. Its overall objectives are to mobilise all resources to effectively implement disaster prevention and control from 2007 to 2020 in order to reduce the loss of human life and assets; minimise the damage to natural resources and cultural heritages, and the degradation of the environment, contributing significantly to ensure the country’s sustainable development, national defence and security. The national strategy regulates tasks, solutions and plans for implementation based on which provinces/cities and ministries develop their action plans. The MARD is the standing agency and coordinates the

implementation of this strategy.

The strategy mentioned the term ‘climate change’ twice: one in the section on international cooperation, which referred to the implementation of the UNFCCC and Kyoto Protocol; another was in the Appendix, which stated that global warming and climate change, El Niño, La Nina phenomena, and the increase in frequency of tropical storms and drought at the global and regional scale have had direct impacts on the weather and disasters in Vietnam. Although there appears a lack of integration between this strategy with climate change strategies and plans, the implementation of the strategy for DRR and related action plans at local level is closely linked to CCA activities. This DRR strategy was introduced around one year before the introduction of the first climate change policy in Vietnam, the NTP-RCC in December 2008.

National plan on disaster prevention and control towards 2020

To implement the *Law on disaster prevention and control 2013*, in May 2019, the Prime Minister signed the national plan on disaster prevention and control towards 2020 under Decision 649/QĐ-TTg. The MARD developed the plan. Among other legal basis, the MARD cited the party’s Resolution 24-NQ/TW in 2013 on proactively responding to climate change; and government Resolution 120/NQ-CP in 2017 on sustainable development of the Mekong River Delta to adapt to climate change. This national DRR Plan therefore has close links to CCA. Indeed, the term ‘climate change’ was used 12 times in the Plan’s text. Climate change response and adaptation were considered in the plan’s perspectives, objectives, orientation, and contents.

In January 2015, the MONRE released the Vietnam special report on managing the risks of extreme events and disasters to advance CCA. This report built on the IPCC (2012) report on managing the risks of extreme events and disasters to advance CCA. The MONRE report assessed extreme events, their impacts on the environment, socio-economic development of Vietnam; trends of future extreme climate events due to climate change; and interactions between climate, environmental and human factors, in order to promote CCA activities and manage risk of disasters and extreme events in Vietnam. The report recommended that DRR and CCA must be better coordinated at all levels, and mainstreamed in all SEDPs, sectoral plans and investments (MONRE, 2015b).

Although DRR legislation and policies regulate the considerations of climate change into DRR planning at all levels, in a report sent to the MONRE on the implementation progress of the Party Resolution 24-NQ/TW, the MARD (2017) stated that mainstreaming climate change response in the agriculture and rural development sector (including disaster and forestry management) remains limited due to a lack of financial resources and technical guidelines.

DRR and CCA belong to two separate policy processes at international, national, and provincial levels. The former follows the Sendai Framework, the latter is within the UNFCCC framework (and

PA). CCA concerns changes in climate including extreme events and deals with future scenarios, while DRR concerns extremes that cause loss and damage and is based on past experiences (Interviewee SN9). At policy-level CCA and DRR can be separable however, within a specific place (e.g. a district), people are more concerned with DRR (Interviewee SN10). At a local level, CCA and DRR have coalesced. In this regard, Mercer (2010) argues that CCA strategies at community level are similar to DRR strategies. Similarly, Kelman (2015) recommended designing programs and projects that would 'blend' climate change and disaster activities, bringing both on board.

Societies have always adapted to changes in their climatic environment although it is rarely recognised by the term of adaptation to climate change (Burton et al., 2002). A government official noted that CCA is a natural phenomenon (Interviewee SN9). Vietnamese farmers have been dealing with climatic changes long before the introduction of national climate change policy in 2008. Therefore, one of the roles of government CCA policy should be to facilitate existing good CCA practices. However, the intervention of governments is always intentional and political, Adger et al. (2009) state that governments inevitably target material wellbeing and issues that they can handle through planning systems.

DRR has been given priority by the GoV. A government official working for the MARD argued that from 2018 to 2020 and the next five to seven years, focus must be given to DRR under the context of climate change, because disaster losses and damages annually cost Vietnam 1.2%-1.5% of its GDP. If there was no sustainability from the beginning, the damage would be immense and irreparable. Vietnam is trying to reduce the loss of economy and human lives due to natural disasters to create foundations to move towards CCA (Interviewee SN9). This means in practice, DRR first and CCA second, although there is potential overlap between the two.

8.4.2. Forestry management

Forestry is another sector under the administration of the MARD. The sector relates to both climate change mitigation and adaptation, and also DRR, especially coastal forests.

Law on forest protection and development

In 2004, the NA passed Law 29/2004/QH11 on forest protection and development. The law regulates the management, protection, development and use of forests, and rights and obligations of forest owners. Issues relating to climate change were not mentioned in the law. However, pursuant to this law, the GoV has promulgated a decree on some policies for management, protection and sustainable development of coastal forests to respond to climate change (Decree 119/2016/NĐ-CP, August 2016). This forestry legal document directly refers to the role of coastal forests in CCA and mitigation (the document's title used the term 'climate change response' (*ứng phó với biến đổi khí hậu*)).

This law was promulgated in 2004, however, at that time, climate change was not officially in the

government's policy agenda (it was from 2008). This helps explain a complete lack of climate change mainstreaming in the forest Law in 2004. However, the NA and GoV have recently amended this 2004 Law, which was passed in November 2017 (Law 16/2017/QH14). The *Law on forestry 2017* does take climate change issues into account and the term 'climate change' occurred seven times in the law's text. A law by the NA usually grants the GoV and its ministries powers to introduce secondary legislation. In the Vietnamese legal system, once the NA passes a law, the GoV will adopt decree(s) and ministries will issue circular(s) to guide the enforcement of the law (see chapter four). With the inclusion of climate change into the *Law on forestry 2017*, the follow-up by-laws should mainstream climate change considerations.

The government agency responsible for the enforcement of this law is the MARD. The MARD is the most active ministry in implementing CCA policy, reflected through at least two indicators: (1) the Ministry proposed and approved a number of sectoral policies and legislation relating to climate change response relatively early, even before the introduction of the first national climate change policy, the NTP-RCC in 2008; (2) a large number of climate change related projects at both national and provincial levels have been assigned to the MARD and DARD for preparation and implementation; MARD and its subordinates were therefore allocated the largest share of state adaptation fund. The main types of CCA related projects were forestation, irrigation systems, sea and river dyke systems, and water reservoirs (see chapters six and seven).

In addition to the forestry legislation which mainstreamed climate change, there are forestry plans and programs such as the national plan on forest protection and development for the period of 2011-2020 (ratified by the Prime Minister under Decision 57/QĐ-TTg in 2012) and the scheme on protection and development of coastal forests to respond to climate change for the period of 2015-2020 (approved by the Prime Minister under Decision 120/QĐ-TTg in 2015). Decision 57/QĐ-TTg cited the UNFCCC and Decision 120/QĐ-TTg identified a list of 149 specific coastal afforestation projects of which 50 planned to source funds from climate change programs such as the NTP-RCC and the SP-RCC (GoV, 2012g, 2015b).

The MARD has been active in addressing climate change impacts on the agriculture and rural development sector (including agriculture, forestry, irrigation, and disaster management). From the MONRE's perspective, CCA has been mainstreamed into the MARD's policies however, the MARD has actually taken advantage of climate change policies and funds to realise its sectoral policies.

8.4.3. Coastal management

Coastal management is a sector under the administration of the the MONRE which also governs climate change.

Law on marine and islands resources and environment 2015

This law was passed by the NA in June 2015 (Law 82/2015/QH13). This law regulates integrated

management of marine and islands resources and the protection of the marine and islands environment; rights, duties and responsibilities of agencies, organisations and individuals in integrated management of marine and islands resources and the protection of the marine and islands environment in Vietnam. The term ‘climate change’ appeared 16 times in the law’s text. Compared to DRR and forestry legislation, this law has an extensive level of climate change mainstreaming. Partly because of the nature of the law (coastal management is highly relevant to sea level rise), and partly because the MONRE (a climate change focal point) was the lead agency in developing the bill.

Chapter IV of the Law regulates integrated coastal management (ICM). ICM provides a major opportunity to address many climate-induced issues and challenges in the coastal zones. There is a practical need for the combination of ICM and coastal adaptation similar to CCA and disaster risk management mentioned above. The interplay between ICM and coastal CCA is extensively documented in literature and practice, including the IPCC Assessment Reports (IPCC, 2007, 2014).

Strategy for integrated coastal management in Vietnam towards 2020, vision towards 2030

This strategy was approved by the Prime Minister under Decision 2295/QĐ-TTg in December 2014. It calls for the development and implementation of coordination mechanisms for public agencies at all administrative levels in coastal management; rules and regulations on demarcating sea boundaries for coastal provinces to identify their powers and responsibilities and to minimise conflicts of interest among various stakeholders in using marine and coastal resources. It requires clear definition of responsibilities of each ministry and coastal locality, and advocates the involvement of communities and civil society in ICM. The strategy has incorporated climate change issues in some sections with the term ‘climate change’ used six times in the strategy’s text, as well as highlighting the mainstreaming of CCA in ICM programs and plans in coastal provinces and cities.

Both the *Law on marine and islands resources and environment 2015* and the Strategy for ICM recognised the impacts of climate change in coastal zones and identified solutions. Examining existing ICM policy and legislation documents showed that the terms ‘climate change’, ‘climate change response’, and ‘CCA’ are present in ICM policy texts. Coastal management measures are requested to include solutions to climate change impacts. However, the term ‘ICM’ (*quản lý tổng hợp đới bờ*) was not found in the texts of the key national climate change policies such as the NTP-RCC 2008, NCCS 2011 and Resolution 24-NQ/TW. Climate change policy and decision makers in Vietnam have therefore not perceived ICM as a measure for coastal adaptation. Nevertheless, the role of ICM in CCA has long been recognised in the literature (Rosendo et al., 2018). It can enable adaptation to climate change, sea level rise and other long-term coastal challenges. There is a considerable degree of overlap between CCA and ICM process. The good practices of ICM can be transferred to CCA (Tobey et al., 2010; Falaleeva et al., 2011; Celliers et al., 2013). Moreover, in all IPCC Assessment Reports (ARs) (from AR1 to AR5), the climate change scientific organisation claims that ICM constitutes an important precautionary response and facilitates successful adaptation to climate change (IPCC, 2007, 2014).

8.4.4. Water management

This sector is under the administration of the MONRE.

Law on water resources 2012

The NA passed the *Law on water resources* in June 2012 (Law 17/2012/QH13). This law prescribes the management, protection, exploitation and use of water resources; and the prevention, control and remedy of adverse impacts caused by water in the territory of Vietnam.

The term ‘climate change’ appeared five times in the law’s text. Article 12 is on basic surveying of water resources, which outlines the task of assessing, warning, and forecasting impacts of climate change on water quantity and quality. Other provisions considering climate change issues include: Article 14 Water resources strategy; Article 17 Bases for development of water resources master plans; Article 53 Water reservoirs and exploitation and use of reservoirs; and Article 60 Prevention and control of drought, flood, inundation and artificial waterlogging.

The main content in relation to climate change in this law is taking future climate change impacts into account from policy-level actions to project-level activities in water resource governance. It is also relevant to adaptation in respect to integrated water resource management.

National water resources strategy towards 2020

This strategy was approved by the Prime Minister under Decision 81/QĐ-TTg in April 2006. This strategy aims to enhance the protection, exploitation, use and development of water resources, as well as the prevention and minimisation of adverse impacts caused by water. Climate change aspects were not explicitly included in this water strategy (which could be due to the time of issuance). However, the strategy’s objectives and solutions were relevant to adaptation to the impacts of climate change, variability and extremes.

In 2012, the Prime Minister approved two master plans on irrigation in the Mekong River Delta and Red River Delta in the 2012-2020 period (Decision 1397/QĐ-TTg; Decision 1554/QĐ-TTg). In the irrigation master plan for the Red River Delta, the term ‘climate change’ appeared 16 times while the plan for the Mekong Delta used the term 17 times. Climate change was considered in all key contents, such as viewpoints, objectives, solutions, implementation funding and implementation arrangements of the plans.

Besides the abovementioned legal documents (section 8.2.1) which incorporated climate change considerations, section 8.4 has reported a number of sectoral policies which also integrate climate change response, especially in the three sectors of agriculture, forestry and disaster management which are under the jurisdiction of the MARD. The MARD was the first governmental ministry to develop and adopt its Action Plan to respond to climate change (Decision 2730/QĐ-BNN-KHCN in September 2008), even

before the introduction of the first national climate change policy - the NTP-RCC (Decision 158/QĐ-TTg in December 2008). The MARD's Action Plan 2008 was updated twice, in 2011 (Decision 543/QĐ-BNN-KHCN) and 2016 (Decision 819/QĐ-BNN-KHCN). The Ministry also issued a directive on mainstreaming climate change into formulation and implementation of strategies, master plans, plans, programs, and projects on agriculture and rural development (Directive 809/CT-BNN-KHCN in March 2011). The MARD is an important CCA policy actor though it does not take the lead role in climate change governance.

In respect of policy-level action, the CCA can be mainstreamed to national, sectoral, and local policies. The above sections reported the mainstreaming of climate change as well as CCA into national socio-economic development planning, and policies and legislation of four sectors, the next section examines CCA mainstreaming in Hai Phong city and Soc Trang province, the two case studies in the present research.

8.5. Local Level

This section presents findings on the considerations of climate change in SEDPs and some non-climate sectors in Hai Phong city and Soc Trang province.

8.5.1. Hai Phong city

In the municipal action plan to respond to climate change (adopted under Decision 65/QĐ-UBND in 2014, see chapter seven), the Hai Phong government identified four actions of which the third mentions climate change mainstreaming: conducting scientific and technological activities to update and supplement assessments on impacts of climate change and sea level rise on sectors and localities within Hai Phong city, and laying foundations for mainstreaming climate change issues into socio-economic development plans (Hai Phong MPC, 2014).

The total estimated budget to implement the city's Action Plan was USD 200 million (VND 4,621 billion), the City planned three sources of funds: the NTP-RCC (central budget); mainstreaming into relevant programs and projects in the City; and financial support from domestic and international organisations (Hai Phong MPC, 2014). The second source means that there are currently non-climate programs and projects being implemented in Hai Phong, and some of the climate change response objectives could be realised through those programs and projects (e.g. sea dyke systems and forestry development programs). One interviewee (SN2) however noted that most provinces and cities have relied on funds provided from central government through the NTP-RCC and SP-RCC, and rarely or limitedly allocate funds from their own budgets for CCA related projects.

According to Report 208/BC-STNMT (21 October 2015) that the Hai Phong Department of Natural Resources and Environment (DONRE) submitted to the MONRE on the implementation progress of the NTP-RCC during the 2010-2015 period, mainstreaming progress was scant with general

statements being provided such as the preparation of the SEDP whereby the Hai Phong MPC proposed activities and measures on climate change response. The City's Party Committee has also adopted an action plan to implement the Central Party's Resolution 24. The City's Party Plan identified 52 projects which mentioned mainstreaming. However, in section III of the report, the city stated that the mainstreaming of climate change in planning, designing and implementing policies is absent, specifically between the city's climate change action plan and sectoral plans, and with respect to financial sources of the proposed projects in the climate change plan. The city's report then recommended the central Government issue a circular (a legal document at ministerial level) guiding monitoring and evaluation of mainstreaming climate change into socio-economic activities of ministries and localities, using the tool of SEA (Hai Phong DONRE, 2015). Note that this recommendation was sent to the MONRE in October 2015 while in May 2016, the MONRE issued a Circular on climate change impact assessment and national climate assessment in which it stipulates that SEA is used as a tool to evaluate impacts of climate change, and respective adaptation and mitigation measures of sectoral strategies and master plans (MONRE, 2016).

In 2006, Hai Phong city developed its master plan for socio-economic development toward 2020, the plan was approved by the Prime Minister in Decision 271/2006/QĐ-TTg (GoV, 2006). Climate change was not mentioned in this Plan. In 2018, Hai Phong amended the plan, which was signed by the Prime Minister under Decision 821/QĐ-TTg. In this updated plan, climate change was considered with the term 'climate change' used nine times in the plan's text. Climate change consideration was mainstreamed from a development perspective to the overall objectives, development orientation, and solutions to implementing the plan. The plan listed 134 projects to be invested in Hai Phong until 2030, of which one project explicitly mentioned CCA: Constructing and upgrading dyke and embankment systems of Do Son tourist site to respond to climate change (GoV, 2018c).

However, climate change response was included alongside the more conventional issues of environmental protection and disaster management. For example, there are six development orientations in the plan, the fifth one is about environmental protection and CCA, which refers to expanding international cooperation and promoting privatisation in environmental protection and CCA. There are 12 main solutions to implementing the plan, of which the ninth is about CCA: proactively and effectively implement solutions in the Action Plan to respond to climate change and sea level rise in the City (the climate change Plan adopted in 2014) (GoV, 2018c).

The 2016-2020 SEDP of Hai Phong (approved in the Resolution 20/2015/NQ-HĐND of the People's Council) showed evidence of climate change consideration. The SEDP also referred to the implementation of the Action Plan to respond to climate change in Hai Phong. The phrase 'proactively respond to climate change' was used in the 2016-2020 SEDP of Hai Phong, which was first used in the Party's Resolution 24-NQ/TW of the CPV in 2013. Since then, party and government agencies nationwide often quote it in their socio-economic and sectoral development policies to show interest in

climate change and consistency with the party's direction. However, the extent of climate change consideration in non-climate policies remains limited, merely citing the words with the mainstreaming of CCA into SEDPs appearing symbolic.

A representative from the Hai Phong DONRE stated that planning processes in Hai Phong had considered climate change issues however, these remained limited in scope (Interviewee SP2). The official noted that mainstreaming is a new concept in Hai Phong and there is a lack of awareness and expertise on mainstreaming climate change as well as CCA. Recently, some Japanese organisations have shown interest in helping Hai Phong build capacity for CCA mainstreaming into the city's plans (Hai Phong Municipal Portal, 2018).

In respect of mainstreaming challenges, respondents at the national level commented that there is strong political commitment in papers however, limited practice on the ground (Interviewee NS6). A ministerial official even stated that mainstreaming is no more than a rhetoric (Interviewee SN10). A Hai Phong official noted, that even climate change specialist officials and scientists are still perplexed by mainstreaming. Workable mainstreaming guidelines are not available while legal requirements are inadequate. If there was a law on climate change there would be decree and circular specifically guiding mainstreaming contents and procedure (Interviewee SP2). The Hai Phong government is concerned about mainstreaming but it is regarded as a difficult issue with many problems (Interviewee SP1). The difficulty of effecting mainstreaming is shared by both national climate change officials (Interviewee SN1) and international development partners (Interviewee NS4).

In accordance with national legislation and policies on DRR, Hai Phong developed and published its DRR plan for 2016-2020 under Decision 3435/QĐ-UBND in December 2016. CCA was included in respect of mainstreaming DRR into socio-economic and sectoral development plans (Hai Phong MPC, 2016). In 2015, Hai Phong adopted its master plan on water resources to 2020, vision 2030. In this water plan, the municipal government has mainstreamed climate change issues. The term 'climate change' was used five times. The overall objective of the plan is to protect municipal water resources properly and ensure water supply to residential communities and socio-economic sustainable development in the context of climate change and sea level rise. The MONRE climate change scenario was cited in the plan's text, and the plan sources funds from the national climate change program for its implementation (Hai Phong MPC, 2015b).

In 2013 Hai Phong issued its master plan on forest protection and development to 2020 under Decision 1600/QĐ-UBND. In this plan, the term 'climate change' was used twice in relation to mobilising funds to implement the plan. The Hai Phong authority identified that the NTP-RCC and the SP-RCC are national sources of investment capital (Hai Phong MPC, 2013). Climate change was not mainstreamed but cited as a source of funds. In 2017 the Hai Phong MPC published its 2017-2020 plan on forest protection and development, with the term 'climate change' being used six times. Its overall objective refers to protecting, developing and sustainably using forest and forest land as

planned; improving forest coverage; and responding to climate change. Similar, to the master forest plan, the 2017-2020 plan referred to climate change as a source of funds (Hai Phong MPC, 2017b).

In respect to CCA mainstreaming into coastal management in Hai Phong, there was no available coastal management policy document developed in Hai Phong. The ICM plan of Hai Phong has not been developed and published yet (Interviewee SP1).

8.5.2. Soc Trang province

The issue of mainstreaming climate change as well as CCA into development was mentioned in the Action Plan to respond to climate change in Soc Trang, which was adopted under Decision 182/QĐ-UBND in 2011. This Action Plan identified nine solutions to realise the plan's objectives, the eighth referred to mainstreaming climate change and sea level rise issues in the socio-economic development plans of Soc Trang province (Soc Trang PPC, 2011).

In the plan, the Soc Trang PPC requested its functional departments to research and mainstream CCA solutions into sectoral development strategies and plans. However, CCA mainstreaming practice remains limited. According to Report 241/BC-UBND submitted to the MONRE in 2017, Soc Trang PCC claimed that due to a lack of legal documents guiding the indicators of climate change response for appraising sectoral plans and projects the mainstreaming of climate change into development remains incomplete in Soc Trang province (Soc Trang PPC, 2017). Earlier, in Report 210/BC-UBND that the Soc Trang PPC submitted to the MONRE in 2015, the Province recommended that the GoV and ministries should issue regulations on mainstreaming climate change response into sectoral development plans (Soc Trang PPC, 2015). An official working for the Soc Trang DPI commented that there were mainstreaming concerns in resolutions and annual plans however, it was merely the inclusion of general statements (Interviewee SP11).

In the 2011-2015 SEDP of Soc Trang (adopted in April 2011), climate change was not mentioned. The 2011-2015 SEDP was adopted before the introduction of the Action Plan to respond to climate change in Soc Trang, which was published in July 2011, which explains the absence of climate change consideration. However, in the 2016-2020 SEDP (adopted January 2016), CCA was listed as one of the plan's overall objectives and the term 'climate change' was used 19 times in the SEDP's text. This reflects a significant change in awareness of Soc Trang policy-makers.

The 5-year SEDP provides the direction for development in the province, as based on this plan, sectors and localities within Soc Trang province develop their own annual plans. Theoretically, the extensive inclusion of climate change in the 5-year SEDP leads to the inclusion of climate change in the annual SEDP and should be manifested in specific projects which realised policy and plan objectives. However, in reality, the mainstreaming of climate change are statements not concrete actions. The common reason raised by local interviewees was there was a lack of funds. Adding climate change

projects into the list of projects funded from their own budgets means projects in other sectors such as education, transport, and health have to reduce their capital and local authorities appear reluctant to do this. This also reflects the perception of local officials who see CCA as an addition to other development actions.

In the Report 241/BC-UBND dated 23 October 2017, which the Soc Trang PPC sent to the MONRE, the Soc Trang authority stated that they had mainstreamed some of the 25 ‘climate change’ projects identified in the Province’s climate change action plan into other programs and projects for implementation (Soc Trang PPC, 2017). Note that in its climate change plan, one of the sources of funds to carry out the 25 projects was mainstreaming them into relevant programs and projects in the Province.

Similar to the national level and Hai Phong city, the issue of mainstreaming is of interest by policy-makers in Soc Trang, however, these concerns were only in intention and planning (Interviewee SP11). This is necessary but not sufficient to create actual outcomes on the ground. The outputs were some CCA-mainstreamed policy documents (e.g. SEDPs) rather than specific CCA-mainstreamed projects to be implemented. Consequently no performance is observed at project level. There is also no key performance indicators (KPIs) for monitoring and evaluation (M&E) of mainstreaming progress (Interviewee SP11). This is the situation in both Soc Trang and Hai Phong (Interviewee SP2) and nationwide (Interviewee NS6).

Due to the perception of CCA as an addition to development, the main barrier to mainstreaming in Soc Trang province reported by local officials was inadequate funding. As a representative from the Soc Trang DONRE commented, without money it is not possible to do anything. Sectors proposed activities/projects but there was no financial source and a limited budget has made such proposals unimplementable. For example, the Division of Sea has proposed an ICM project for some years but there was no funds, so it cannot be implemented (Interviewee SP7). Another common barrier across levels was a lack of mainstreaming know-how. Currently there are regulations, but technical guidelines are not specific and local implementation of mainstreaming is therefore problematic (Interviewee SP6).

At the district level the situation was no better. District government officials in some key sectors such as NRE and agriculture are aware of the issue of mainstreaming. Nevertheless, as a consequence of limited actions at national and provincial levels, mainstreaming practices at the district level are scant, an interviewee said that there are general statements, people have been talking about climate change mainstreaming however, where to mainstream and how to mainstream is still very vague (Interviewee SD4). At national level, respondents reported similar phenomenon, with representatives from the UNDP and JICA commenting that everyone is talking about mainstreaming but no one knows how to do it (Interviewees NS4, NS5). There is a ‘mainstreaming effect’ (*hiệu ứng lồng ghép*) in Vietnam, a

researcher in Hanoi noted (Interviewee NS7) reflecting the single sector-based approach to or ‘silo effects’ operating in public policy-making.

The above has reported the evidence of mainstreaming of CCA into national, sectoral and local policies. These policy-level actions are important but do not yield actual outcomes on the ground. Further steps, mainstreaming CCA into specific sectoral development projects, and implementing these mainstreamed projects, are needed.

8.6. Project-level Activities

CCA can be mainstreamed at various planning levels (entry points) such as national policies and legislation, sectoral policies, local policies and projects (Frode, Scholze & Manasfi, 2013). According to Gogoi et al. (2017), mainstreaming within national and sectoral policies and strategies has been relatively straightforward, this is the early entry point. These policies and strategies are high-level policy documents. They are a basis for follow-up work at ministries and localities, which is closer to the ‘ground’. However, the challenge is how to go from high-level policy documents to the intermediate documents and eventually concrete actions at the level of projects and budgets.

In chapters six and seven on vertical CCA policy implementation, project-level activities were the mechanism turning climate change policy objectives, strategies and plans into actions on the ground. The role of projects in the mainstreaming process is similar. Pervin et al. (2013) argue that even where climate change is well mainstreamed into national and sectoral planning processes, specific projects remain the means to translate policies, strategies and plans into concrete actions.

Practices in Vietnam at national, sectoral and local levels showed that there were enabling environment, policy-level actions in relation to CCA mainstreaming however, project-level activities were almost absent. There are appraisal tools for mainstreaming CCA into strategies and plans (such as SEA), but at an operational level there were no tools, for example environmental impact assessment (EIA) was not used for climate proofing sectoral development projects. The consideration of climate change issues in specific project design, appraisal and implementation remains voluntary.

In the horizontal implementation mechanism, the policy-level actions are clear, however, the project-level activities need further clarification. Project-level CCA mainstreaming refers to the considerations of climate change risks in designing, appraising, approving, delivering, and monitoring and evaluating projects (Pervin et al., 2013). All projects funded directly from climate change programs such as the SP-RCC and NTP-RCC are classified to the vertical implementation mechanism (chapters six and seven). CCA-mainstreamed projects are sectoral projects which are not funded from climate change programs but sectors’ own budgets. One of the purposes of CCA mainstreaming is to get funds and authorities for CCA activities to be implemented (Tobey et al., 2010). According to USAID (2009), by mainstreaming CCA into development initiatives, there is already access to the pool of resources

already earmarked for those initiatives. This eliminates the need to create a separate resource pool (budget line) for stand-alone CCA efforts. This also helps remove the financial barriers to CCA policy implementation reported by almost all sectoral and local government officials.

The GoV has encouraged ministries and provinces to allocate funds from their own budgets to implement ‘climate change’ projects. The section on implementation arrangements of the national action plan to implement the NCCS 2011 (Part III, Decision 1474/QĐ-Tg in 2012) states that based on the approved national action plan on climate change, ministries and localities should develop detailed contents and cost estimates for approval and arrangement of funds in accordance with provisions of the *Law on state budget 2015*. In particular, ministries and localities should clearly define tasks and projects under their regular functions and duties, then arrange funds from their own annual budgets for implementation (GoV, 2012h). This means that ministries and provinces should use their allocated budgets to implement climate change related tasks identified and assigned in the plan rather than seeking funds from climate change programs. However, this proves difficult as climate change issues are not sectors’ and provinces’ priority, their limited budgets need to be allocated to tasks that directly relate to their formal mandates (e.g. with the Ministry of Transport, it is about investing in road and railway systems; with the MARD, it is about agriculture production and rural infrastructure). Non-climate sectors tend to take CCA actions only when they are given extra funds to their annual budgets (Interviewee SN2).

In the NTP-RCC section on financial mechanism, it is stated that one of the mechanisms is to mainstream CCA projects into other sectoral programs and projects to exploit funds. The idea is there are some existing programs and projects carried out by sectors which relate to CCA such as the scheme on protection and development of coastal forests to respond to climate change in the period 2014-2020, which was approved by the Prime Minister in the Decision 120/QĐ-TTg in 2015. There were 149 afforestation projects identified in the scheme which is coordinated by the MARD. Another initiative relates to CCA is the program on consolidating and upgrading sea dike systems from Quang Ngai province to Kien Giang province (from central to southern part of the country). This program was ratified by the Prime Minister in the Decision 667/QĐ-TTg (in May 2009). The intention of policy-makers was to take advantage of the approved programs and projects to realise CCA objectives through implementing CCA-mainstreamed projects funded through these programs. However, reality has gone the other way around, these existing sectoral programs have made use of climate change funds to deliver their projects.

In accordance with the *Law on public investment 2014*, the GoV, its ministries and provinces have to develop medium term (5-year) investment plans (taking effect from 2016-2020). The main component of an investment plan is the list of public investment projects, capital mobilisation, allocation, and balance to implement the identified projects. The current national 2016-2020 public investment plan was approved by the NA under Resolution 26/2016/QH14 in 2016. All investment projects of a ministry (e.g.

the MARD) or a province (e.g. Hai Phong or Soc Trang) to be implemented from state budget must be identified in the 5-year investment plan passed by the NA and GoV. This means CCA investment projects must be planned and approved by the GoV and NA in order to be allocated funds for implementation. The Prime Minister is directing ministries and provinces to develop their investment plans for the 2021-2025 period (Directive 20/CT-TTg, July 2019). The five-year SEDP and public investment plan are the basis for government agencies to develop and implement their annual SEDP. If Hai Phong plans to implement CCA investment projects in the coming years, the city must include these projects in its 2021-2025 investment plan. The procedure for managing and implementing an investment project is complicated and time-consuming and a project to be implemented by Vinh Chau district in Soc Trang province must be approved first by Soc Trang PPC, then the GoV, and the NA. The appraisal process before NA's approval is also complex with the involvement of many actors such as the PPC, MPI, Prime Minister, and functional ministries depending on the nature of the project (e.g. an afforestation project has to consult the MARD). General public investment institutional arrangements influence specific CCA project development and implementation.

8.7. Institutional Arrangements

Mainstreaming CCA into sectoral policies involves multiple actors, institutions and processes (Gogoi et al., 2017). This section discusses both policy actors and their interactions (the mechanisms that actors work together to get CCA mainstreamed into sectoral policies). The institutional arrangements identified in the vertical CCA implementation also play a role in mainstreaming CCA into sectoral policies. There exists substantial interplay between vertical and horizontal CCA policy implementation. In other words, they are two sides of the same coin.

The institutional mechanisms to enhance the mainstreaming of climate change into sectoral policies and development plans can be established by an inter-ministerial steering committee directing mainstreaming process or the adoption of formal regulations on integration (Vogel & Henstra, 2015). CCA mainstreaming is also achieved by incorporating CCA into the mandates of bureaucracies and job descriptions of their staff (Burch, 2010; Vogel & Henstra, 2015). Government ministries other than the one which is primarily designated with climate change administration should have their official mandates on CCA clearly stated, for example the mandate of the MARD should include CCA. This is the institutional evidence of mainstreaming (Knaepen, 2013).

One mechanism to get climate change mainstreamed into sectoral policies is related to MONRE's duty on providing comments on the work of other ministries and provinces (Paragraph 14, Article 2 of the Decree 36/2017/NĐ-CP). The consultation requirement in the planning process facilitates CCA consideration in sectoral development plans. Line ministries when formulating their development policies, strategies or plans have to seek comments from the MONRE before their drafts can be approved. When the MONRE reviews these drafts, according to its climate change management mandate, the ministry will recommend issues in relation to climate change response as well as CCA in

those drafts, from objectives to solutions and specific tasks (if applicable). This national consultation process in sectoral planning is mirrored at a local level where line provincial departments have to consult DONRE on NRE issues including climate change before their plans can be approved.

8.7.1. Mainstreaming climate change adaptation into socio-economic development plans

The MPI, an economic ministry, is responsible for coordinating the development and implementation of the Agenda 21, SDGs, and SEDPs. In climate change policy documents such as the NTP-RCC in 2008, the MPI was assigned the leading task of developing guidelines for ministries and localities to mainstream climate change as well as CCA into their SEDPs. Within the MPI, the Department of Science, Education, Natural Resources and Environment (DSENRE) is mandated with the task. Climate change response was included in the DSENRE's mandate (Decision 1872/QĐ-BKHĐT in 2017). Climate change is therefore mandated to an existing body in charge of environment issues in the MPI.

8.7.2. Mainstreaming climate change adaptation into disaster risk reduction and forestry management

Climate change is also mandated to an existing body in charge of environment issues within the MARD. Disaster and forestry management are officially under the administration of the MARD. Except for the MONRE, the lead government agency of climate change, the MARD is the only government ministry that has climate change included in its official mandate. The term 'climate change' was used three times in the governmental Decree 15/2017/NĐ-CP stipulating the functions, duties, powers and organisational structure of the MARD. Accordingly the GoV mandates the MARD to deal with the resettling of residents who are affected by disasters and sea level rise and implement tasks in relation to climate change response and sea level rise within the ministry's jurisdiction (GoV, 2017d).

The MARD has also established a ministerial steering Committee for Climate Change Mitigation and Adaptation, and the Office of the Steering Committee which is located in the Department of Science, Technology and Environment (DSTE). The Office is led by a Deputy Director of the DSTE, and has three other officials (Interviewee SN10). The DSTE was delegated the duty on climate change. Decision 816/QĐ-BNN-TCCB by the MARD stipulated the functions, duties, powers and organisational structure of the DSTE. Paragraph 4, Article 2 of Decision 816 regulates duties on environmental protection, climate change and biodiversity. According to Decision 412/QĐ-BNN-TCCB in 2011 by the MARD, the Office of the Steering Committee has its own bank account, stamp and annual operational cost. This is the formal institution within the MARD whose day-to-day work relates to climate change response in the agriculture and rural development sector.

8.7.3. Mainstreaming climate change adaptation into coastal management and water management

Coastal management and water management are under the administration of the MONRE. The former

area is assigned to the Vietnam Administration of Seas and Islands (VASI), the latter is delegated to the Department of Water Resources Management (DWRM). Both VASI and DWRM are MONRE affiliations. Since the MONRE governs climate change, water resources and coastal management, there are more opportunities for CCA to be mainstreamed into the two sectors. However, research showed that the extent of CCA mainstreaming in water and coastal management sectors is not much different compared to the DRR and forestry sectors which are administered by the MARD. An interview with a representative from VASI showed that the collaboration between the Department of Climate Change (DCC), VASI, and DWRM is problematic. Each department followed its own planning procedure, leading to disconnected plans though all take effect in the coastal zones (Interviewee SN5). The official repeatedly complained about coordination and collaboration among government agencies including bodies within the MONRE, noting:

The worst thing that I can tell you is there is no information sharing not only between VASI and DCC but also other units within the MONRE, not to mention outside the Ministry. Each department just wants to keep their own data. There is no sharing (Interviewee SN5).

This ‘silo effect’ also occurs within a sector (different departments within the MONRE). There are therefore problems in both inter- and intra-organisation collaboration in relation to CCA policy implementation (both vertical and horizontal mechanisms).

8.7.4. Role of non-government organisations

Mainstreaming’s emergence in policy and planning process in Vietnam has been based on bottom-up approaches and initial works on mainstreaming undertaken by NGOs and donors through specific projects on the ground before 2008 (Interviewee NS1).

The SP-RCC is also a mechanism for climate change mainstreaming to sectoral policies and has two folds: funding local CCA investment projects (chapter seven); and facilitating climate change mainstreaming. It aims to develop policies that mainstream climate change issues into socio-economic, sectoral, and local development strategies and plans. These objectives are to be achieved through policy dialogue and policy formulation between government ministries and international donors. Since 2009, there have been over 300 policy actions within the SP-RCC program, most of the actions are sectoral policies and legislation development such as forestry, disaster, coastal zone, biodiversity, energy, construction, transport, education, and urban waste (GoV, 2016c).

8.8. Chapter Summary

Mainstreaming climate change into strategies, and plans has been specified in the documents of the CPV, the NA and the GoV. Resolution 24-NQ/TW on proactively responding to climate change, enhancing natural resources management and environmental protection has identified this as one of the key tasks. This issue has also been stipulated in the *Law on environmental protection 2014* (Article 40), the *Law on*

meteorology and hydrology 2015 (Article 31) as well as the key tasks of the NTP to respond to climate change, and the NCCS. However, in practice, CCA mainstreaming mainly occurred at the policy level, where even at this scale, ‘sincere’ mainstreaming remained limited, with mere insertions of climate change related terms in sectoral policies and legislation.

CCA mainstreaming actions have been taken at a national level in Vietnam. In Hai Phong and Soc Trang however, this is mainly in terms of management, planning, and regulation (policy-level actions), and there was a lack of project-level activities in relation to CCA mainstreaming. This finding reinforces the results of earlier studies which demonstrate that the ideal of CCA mainstreaming is difficult to put into effect (Pasquini et al., 2013; Wyborn & Dovers, 2014; Lindegaard, 2013).

A tool (SEA) is available for government agencies to use to ensure CCA is mainstreamed into strategies and master plans. However, there was no tool to ensure CCA mainstreaming at project level (as EIA was not used). Mainstreaming at policy level does not incur much funding however, at project level it requires investment since government officials in Vietnam perceived CCA as an addition to other development tasks.

In the Vietnamese administrative context the main barrier to mainstreaming is a lack of specific mainstreaming regulations and guidelines by state agencies, which is reported by both government officials at national level (Interviewees SN4, SN6) and local levels (Interviewees SP2, SP6). Another barrier relates to the lack of collaboration between agencies at the same administrative levels (be it national, provincial or district level) - the ‘silo effect’ is significant (Interviewee SN5). In this regard, Vogel and Henstra (2015) claim that CCA mainstreaming is hindered by the functional fragmentation of modern governments or sectorised style of working.

In Vietnam, mainstreaming is mostly in the form of commitments rather than actual implementation. There are some policy-level actions but no evidence of CCA-mainstreamed project-level activities on the ground. This means that it may take a very long time for sectors to see CCA as part of their routine work (Interviewee SN1). Some interviewees mentioned that sectoral officials are already busy with their ‘regular’ tasks. Consideration of CCA issues in sectoral policies, strategies, plans, programs, and projects is perceived as meaning that it will make them busier still, although it is also pointed out by respondents that they do not know how to mainstream (Interviewees SN1, SP2, SD4). In effect, CCA mainstreaming remains symbolic in coastal Vietnam.

CHAPTER 9:

DISCUSSION OF RESEARCH FINDINGS

9.1. Introduction

This chapter analyses and integrates in more depth the main findings of this thesis. The discussions in this chapter revolve around the central research question: How climate change adaptation (CCA) policy is implemented in coastal Vietnam, and the four research objectives which were outlined in chapter one. The initial conceptual framework which was developed in chapter five is revised according to how CCA policy has actually been implemented in coastal Vietnam.

9.2. Policy Flows: Vertical and Horizontal Climate Change Adaptation Policy Implementation

CCA policy in coastal Vietnam has been vertically transferred from national to provincial, district, and commune levels and horizontally mainstreamed into sectoral policies. The former mechanism reflects the central-local relationship within the CCA policy framework (national CCA strategies, plans, programs and projects); the latter the policy interplay between CCA and other policy domains (cross-sectoral interaction). The vertical implementation process is prevalent in coastal Vietnam reflecting Gilfillan et al's (2017) observation that vertical top-down policy-making and implementation, and state-centric governance of public issues including CCA remain dominant in contemporary Vietnam.

Vertical implementation has two pathways, top-down and bottom-up. Top-down is concerned with planning and financing processes. CCA policies, strategies and plans made at the national level have been incorporated by local authorities into their own plans and specific projects. This is not a two-way relationship however, as most national CCA policies are made without the involvement of local authorities. The National Target Program to Respond to Climate Change (NTP-RCC), National Climate Change Strategy (NCCS), and Resolution 24-NQ/TW were all prepared by the Ministry of Natural Resources and Environment (MONRE). The consultative workshops were mainly organised in Hanoi, the capital city of Vietnam, with participants from line ministries, international donors and non-governmental organisations (NGOs). None of the local respondents reported their involvement in the preparation of national climate change policies and programs. Even the cross-sectoral consultation process was problematic, with an official from the Ministry of Agriculture and Rural Development (MARD) reporting that policy documents sent from the MONRE seeking comments often arrived in just before they were due and they did not have adequate time to prepare good feedback (Interviewee SN10).

Bottom-up communication is mainly concerned with feedback or reporting which relates to broader monitoring and evaluation (M&E) processes and project proposals in which localities sought funds from the three national climate change programs (the NTP-RCC, SP-RCC, and the Science and Technology for the NTP-RCC), which are managed by the MONRE. This is because provinces and

cities, and also line ministries, who expected to implement climate change related projects from 'climate change' funds have to send their requests to the MONRE for appraisal.

The impact of climate change on socio-economic development is one of the main justifications for the need of mainstreaming CCA into sectoral development policies and projects (Ayers et al., 2014). Climate change issues can be mainstreamed into existing or new policy processes, organisational structures and working routines of sectoral and local officials. Mainstreaming helps address the issue of lack of funds for CCA which can arise in a stand alone approach. However, a barrier to mainstreaming is that sectors are not willing to re-allocate their secured funds for CCA. The mainstreaming of CCA into sectoral policies in coastal Vietnam therefore remains primarily symbolic as there is a 'mainstreaming effect', meaning that many government officials at all levels have been talking about mainstreaming but they do not know how to do it (Interviewees NS4, NS5, NS7). There is still a marginal concern for climate change impacts in sectoral policies and development projects. Current national regulations, directives and guidelines are insufficient to facilitate effective CCA mainstreaming actions. This situation is not unique to Vietnam and has also been reported in other developing countries such as Ghana (Adu-Boateng, 2015), Indonesia (Rahman, 2017), China (He, 2013), potentially reflecting a similar lack of resource allocation.

CCA mainstreaming is regulated in Vietnamese environmental law and the strategic environmental assessment (SEA) (a tool in environment management) is used to appraise mainstreaming to strategies and plans. In line ministries (e.g. the MARD and the Ministry of Planning and Investment (MPI)) climate change is assigned to departments in charge of environmental issues. It therefore appears that CCA is framed as an environmental issue by Vietnamese government agencies, a finding also shared with He's (2013) research in China.

In Vietnam, mainstreaming is mostly in the form of commitments rather than actual implementation. There are policy-level actions but they are limited to project-level activities on the ground. It might take a very long time for sectors to see CCA as part of their routine work (Interviewee SN1). Some other interviewees mentioned that sectoral officials are already busy with their regular tasks and consideration of CCA issues in sectoral policies, strategies, plans, programs, and projects is perceived as making them busier, even though they do not know how to mainstream. This finding in Vietnam is shared by CCA mainstreaming research in Indonesia, where Rahman (2017) found that mainstreaming adaptation presented new challenges and increases the perceived workload of government officials.

9.3. Action in the Policy-Action Relationship of Implementation Studies

There are processes of policy-level actions and project-level activities within the vertical and horizontal flows of CCA policy implementation. The outputs of the policy-level actions could be legal documents, strategies, or plans to facilitate the implementation of the original CCA policy intentions. This process is an intermediate step which does not yield policy outcomes but creates an enabling

environment for CCA actions. This role of CCA government policy is acknowledged by CCA policy researchers (Ampaire et al., 2017; Fankhauser & Soare, 2013). However, some government officials reported that there are too many climate change related plans at national and provincial level, overloading local officials (Interviewees SN1, SP7). This phenomenon was also observed by NGOs (Interviewee NS4). In this regard, Benediter (2016) stated that there is an abundance of planning documents in the bureaucratic work routines (state-directed planning) in Vietnam. In addition to the quantity, Benediter (2016) also noted the poor quality of the governments' plans, seeing them as mere rhetorical exercises. In respect to climate change plans, Nguyen (2017) studied 40 provincial climate change action plans in Vietnam, and found similar problems of poor quality.

Essentially, CCA planning processes (policy-level actions) in Vietnam stop at the provincial level. National climate change officials argue that climate change action plans should be prepared by national, sectoral and provincial authorities and that there is no need for district and commune authorities to develop their own plans because firstly, there is no planning capacity; and secondly, they are administered by provincial government and therefore they have to implement plans made at the provincial level (Interviewee SN1). In fact, this research found that Do Son district in Hai Phong and Vinh Chau district in Soc Trang did not have their action plans developed and approved, instead there were political and executive orders to request relevant public bodies to carry out the directions from higher level authorities (provincial and national, both government's plans and party's resolutions). The 'plans' at district level, if any, are merely official letters circulating directions rather than planning documents which contain climate change impact assessments and relevant adaptation objectives, measures, and specific tasks with timelines and financing. A representative from an NGO confirmed that he has never seen a district-level climate change action plan (Interviewee NS2).

Project-level activities are concrete actions turning policies and plans 'on paper' to practice. The policy-level action process has been progressive, resulting in the current landscape of climate change policy in Vietnam and in the two case studies. The project-level activity process has different degrees of performance in sectors and localities. Empirical examination revealed that in the vertical implementation flow, few projects relating to CCA have actually been carried out on the ground compared to the planned projects identified in national and local strategies and plans. With respect to horizontal implementation, there have been sectoral policies and legislation (laws, strategies and plans) which mainstream climate change considerations however, there was no evidence of CCA-mainstreamed into sectoral development projects. The consideration of climate change in sectoral development projects remains voluntary and there are no technical guidelines as to how to mainstream CCA into projects. Instead, there are only guidelines on mainstreaming into strategies and plans.

The Government of Vietnam (GoV) often uses national target programs (NTPs) which are national-scale programs with coherent objectives, solutions and interrelated projects led by a government ministry, to realise public policy objectives (Shanks et al., 2004; Hoa, 2016). Most key socio-

economic sectors have their own NTPs (e.g. healthcare, rural development, energy, culture, and education). In the period 2011-2015 there were 16 NTPs being implemented in Vietnam (NA, 2011a). The national programmatic approach has also been employed by the GoV to implement climate change policy through the development and implementation of the NTP to Respond to Climate Change in 2008 (NTP-RCC), the Support Program to Respond to Climate Change (SP-RCC) in 2009 and the National Scientific and Technological Program for the NTP-RCC 2011-2015 and 2016-2020. Fankhauser and Burton (2011) argue that using a programmatic approach to adaptation might be more effective than the project-by-project approach. However, the national programmatic approach to CCA policy implementation has partly led to the overreliance of local government on the national government for policy direction and funding. This top-down approach also facilitates the 'equitable distribution' mindset of decision-makers when allocating funds for provinces and cities regardless of their differences with respect to the impacts of climate change and institutional capacities.

Public policy implementation is the translation of policy into action (Hall, 2009). 'Action' in the policy-action relationship in implementation studies (Barrett & Fudge, 1981) in the present research are policy-level actions and project-level activities. Policy-level actions reinforce the notion that policy implementation is the continuation of policy formulation and that separation between policy formulation and implementation is unrealistic. Indeed, Hill (2013) argues that the act of formulation and decision-making can occur anywhere in the policy process, and the assumption that formulators are always at the 'top' or 'centre' is rejected. Policy-making process at the national level creates framework policies with general objectives and solutions, which are then specified by sectoral and local authorities. In the Vietnamese CCA policy process, planning is part of policy implementation whose outputs are climate change action plans which often include a 'shopping list' of projects proposed to address impacts of climate change. The delivery of these projects are also a part of CCA policy implementation.

Additionally, the national government, and the Hai Phong and Soc Trang authorities have taken policy-level actions to elaborate a policy issued by the Communist Party of Vietnam (CPV) - the party Resolution 24-NQ/TW in June 2013 (the central government Resolution 08/NQ-CP in January 2014; Plan 24-CTr/TU in October 2013 of Hai Phong; and Plan 28/-CTr/TU in August 2013 of Soc Trang (see chapters six and seven)). The formulation of these government policy documents (plans) is also the implementation of the party's policy, illustrating the blurry separation between policy formulation and implementation. Barrett and Fudge (1981) argue that for those at the top level of the political system everything following the party manifesto is implementation.

9.4. The Funnel Model

Public management of CCA in Vietnam is mandated to the natural resources and environment (NRE) sector. The vertical institutional arrangements across administrative levels are the MONRE, Department of Natural Resources and Environment (DONRE) and the Division of Natural Resources

and Environment (DIONRE) at national, provincial and district levels respectively. Within the MONRE, the Department of Climate Change (DCC) takes the lead role in climate change administration; within Soc Trang DONRE, there is no such specialised unit solely responsible for climate change but the Division of Water, Minerals, Meteorology, and Hydrology (DWMMH) which manages four sectors including CCA. In Vinh Chau DIONRE, there is no sub-unit but individual officials instead. The organisational and personnel arrangements for the CCA sector from national to district level (and commune level) can be described as a funnel model, becoming narrower as one moves from the ‘top’ to the ‘bottom’. In respect of personnel size, the DCC within the MONRE at national level has 41 officials of which five work in the Division of Adaptation (personal communication with an official working for DCC, August 2018). At the provincial level of Soc Trang, the DWMMH within DONRE is responsible for CCA and only has five officials, with the CCA sector assigned to one official (Interviewee SP6). In Vinh Chau district, the DIONRE has five permanent officials and three contract-based staff, and climate change is assigned to a contract-based staff member who is also in charge of water and environment management. Owing to a staff shortage, one district cadre has to cover more than one sector (Interviewee SD4). At commune level, CCA was not officially assigned to the only NRE bureaucrat in each commune, whose main work is concerned with land use and environment management.

The funnel model does not only hold true for institutional arrangements and personnel but also policy-level actions and project-level activities from national to commune level. Travelling down from the ‘top’ to the ‘bottom’, there are fewer bureaucracies, bureaucrats, and policies and specific activities in relation to CCA. This stands in contrast to the characteristics of climate change impacts which are manifested at the local commune level - the ‘bottom’ (Vogel & Henstra, 2015; Phuong et al., 2018). Undoubtedly, the impacts of climate change express themselves at different scales but they are “experienced locally, and therefore, geographic variability in climate impacts emphasises the need for ‘place-based’ approaches to climate vulnerability analysis and adaptation” (Measham et al., 2011, p.890).

Additionally, local officials frame climate change in terms of ‘disaster’ (Interviewee SN1). At a policy level and in planning process from international to national, provincial and district levels, disaster management and CCA are two separate policy frameworks, however, in practice on the ground, at commune level, disaster risk reduction (DRR) and CCA have been merged (Interviewee SN10; Mercer, 2010; Kelman, 2015). Simmons et al. (1974) termed this phenomenon as policy coalescence whilst it also reflects what Urwin and Jordan (2008) regarded as policy interplay – the trend for policy to mutate as it flows down the policy chain from those that originally made it (‘the top’), to those charged with implementing it at ‘the bottom’. CCA and DRR policies are two separate policy processes until they are turned into actions on the ground, with subsequent implications for policy intentions.

9.5. The Mandate Issue

Local government agencies and their staff are only involved in CCA related activities when there is a CCA project in their localities. Unless the project is officially mandated, local agencies and staff will stop taking CCA actions because CCA is not officially part of their functions and duties (Interviewee NS1). This is the typical working style of public agencies in Vietnam, where for any public issues without official mandates, relevant actions will not be taken or sustained. Among 22 government ministries, only the MONRE and the MARD have climate change administration included in their mandates, therefore these two ministries are the most active policy actors in CCA policy making and implementation in Vietnam (see chapter six). Public policy scholars argue that government machinery is often rule-bound and inflexible (Olsen, 2006; Pillay & Bilney, 2015).

Therefore, in the Vietnamese political context there must be formal regulations and institutions on mainstreaming for it to be achieved (Interviewee NS7). The legal status of mainstreaming regulations will determine the performances of ministries and provinces. In relation to CCA mainstreaming, although the MONRE is charged with climate change governance, the mainstreaming of CCA into development policies is assigned to the MPI because socio-economic development planning is part of their mandate, not the MONRE (Interviewee SN1).

As discussed above, at district level, CCA was assigned to a government official charged with environmental protection whilst at commune level, CCA has not been included in a cadre's job description. The main tasks of NRE officials are environment and land use management at the two lowest government levels. CCA is not 'regular' and mandatory. Phuong et al. (2018) also found that CCA is currently an integrating rather than a legal mandatory task, and it is not considered the main work of bureaucrats working at district and community levels. A lack of legal mandate could therefore explain, at least in part, the limited progress on CCA policy implementation in Vietnam across different administrative levels.

Under the hierarchical governance of public issues in Vietnam (Gilfillan et al., 2017; Benedikter, 2016) and the top-down policy system (Phuong et al., 2018) public agencies and their officials only take actions when they are requested to by higher level authorities. The request can be formally stated in their mandates or in executive orders (e.g. a directive from the Prime Minister). Biesbroek et al. (2018b) argue that government agencies tend to reinforce behavioural routines rather than facilitate flexible and innovative actions. In the case of Vietnam, the routinised policy process prevents public agencies from being flexible in collaboration and they rigidly work according to their formal mandates while climate change is a new and cross-cutting policy issue.

Biesbroek et al. (2018b, p.782) question if "public servants conceive of themselves primarily as strict interpreters of the law, or do they see themselves more as managers responsible for translating policy goals into action?" In Vietnam, and for CCA policy implementation, government officials are

primarily interpreters of the law. They have govern-by-rule mindsets (Bui, 2014). A number of government officials at national and local levels reported the need for a law on climate change (Interviewees SN3, SP2). A district level official in Soc Trang noted that there must be specific legal regulations from national to provincial levels so that district authorities know what to do (Interviewee SD4).

The current CCA policy documents are in the form of executive orders rather than legal regulations forcing actors and stakeholders to take relevant actions. There is no law on climate change in Vietnam. Therefore, sectors and Hai Phong and Soc Trang have a degree of autonomy and discretion in implementing CCA policy introduced by the central government. Clear legal institutions and mandates are expected to facilitate CCA policy implementation in Vietnam. The lack of financial and human resources combining with the autonomy of local authorities have reinforced the delay of CCA actions at the local level.

9.6. The Scale Issue

Some interviewees at national and provincial levels stated that the impacts of climate change operate on a large scale, and are not limited to a commune or district geographical boundary (Interviewee SN2), even not within a province but climate zones (Interviewee SN9). A government official in Soc Trang noted that climate change does not affect a single region or area, but that it is inter-regional, especially in relation to water resources (Interviewee SP7). In the Mekong River Delta for example, when upstream provinces built their embankments, the downstream provinces were affected (Interviewee SN3). This is the perception of the spatial scale of CCA of government officials. For national policy-makers climate change tends to be regarded as a long-term issue with a high level of uncertainty. Local officials do not perceive climate change as an urgent threat and they mainly work on more pressing, near-term issues such as employment and income generation for local residents rather than “distant matters in 20 years time” (Interviewee SN1). Vogel and Henstra (2015) also found that due to immediate costs and perceived long-term and uncertain benefits, local officials are unlikely to regard CCA as a priority. The temporal and spatial dynamics of exposure and vulnerability is particularly important given that a short-term and/or local approach to the design and implementation of adaptation strategies and policies can reduce immediate risk, but may increase exposure and vulnerability over the longer term and/or other places (IPCC, 2012).

The current socio-economic development planning process in Vietnam also creates problems for mainstreaming long-term climate change consideration. Specific activities in sectors and localities are allocated funds based on annual socio-economic development plans (SEDP) (see chapter eight). The core component of an annual SEDP is a list of projects to be allocated funds for implementation in the fiscal year. These projects are a means to realise public policy objectives including those of CCA. The misfit between the current formal planning process and long-term characteristics of climate change was noted by an NGO representative:

Local socio-economic plans were developed annually, therefore only short-term [climate change related] issues were integrated such as drought, flood or saline intrusion. Distant issues such as sea level rise or rainfall pattern change are unable to be mainstreamed into the plans, because it is long-term and gradual (Interviewee NS2).

The misfit between administrative boundary and transboundary characteristics of climate change impacts has also been raised by CCA researchers (Steele et al., 2014; Vij et al., 2017). Vietnamese national level CCA policies have recently started to pay attention to the regional approach to adaptation (e.g. Resolution 120/NQ-CP in 2017 by the GoV). However, CCA policies in Hai Phong and Soc Trang have not acknowledged this issue yet and mainly focus on CCA activities within their administrative and geographical boundaries. This is partly because of the mandate issue discussed above, whereby jurisdictions are rigid, and public agencies perform duties according to their official functions. In addition, inter-agency collaboration within and between provinces remains problematic in contemporary Vietnam and is extremely limited.

Climate change impacts are manifested at the commune and district levels but managed by higher levels of authorities at the provincial/municipal and national levels. This is partly because of the low management capacity and lack of staffing at district and commune levels (Interviewees SN1, SN10; see also Phuong et al., 2018), and partly because of the unwillingness to decentralise work and funds of provincial/municipal authorities to district authorities (Interviewee SP1).

CCA researchers have recommended a multi-level governance (MLG) approach to CCA to deal with the scale issue of climate change impacts. According to Vogel and Henstra (2015), local CCA does not take place in isolation and is embedded within a broader MLG context with regulation and decisions made by higher levels of government and influenced by non-state actors. Non-local factors determine local CCA. Similarly, Gupta (2007) argues that adaptation is a responsibility shared by all levels of government, although the appropriate division of tasks among different levels remains unclear. The present empirical research showed that there were no policy-level actions at commune level but project-level activities which are implemented by provincial or district authorities, rather than by street-level bureaucracies and bureaucrats themselves. However, divided jurisdiction also constrains local CCA policy choices since specific adaptation activities are subject to regulations enforced by higher levels of government (Ekstrom & Moser, 2013). This is extremely relevant to the Vietnamese context where local authorities largely rely on central government for CCA funds and implies that MLG of CCA might delay local CCA policy implementation.

9.7. Decline of Interest

Though the impacts of climate change are increasing (IPCC, 2014), there is declining interest in CCA projects in Hai Phong city and Soc Trang province. A government official working for the Soc Trang Department of Planning and Investment (DPI) commented that there are too many policies

whilst resources are limited, she noted “I am not interested in the existing climate change policies since financial resources are unchanged” (Interviewee SP11). From a national level perspective, an agriculture sector official stated that provinces have stopped taking climate change related actions because they know there are no more funds (Interviewee SN10). This trend is also observed at a district level as an official in Vinh Chau reported that recently there have been fewer climate change projects (Interviewee SD4). The trend is also acknowledged by MONRE officials who are directly involved in CCA policy making and implementation (Interviewees SN1, SN2). Respondent SN2 working for the DCC within the MONRE noted that the national government (including the MONRE) used to advise local governments that there would be international support for local CCAs however, after five years of seeing no progress, local authorities have lost interest in CCA. This research therefore suggests that the underlying motivation of local authorities to develop and implement climate change action plans and relevant projects is primarily driven by the prospect of obtaining funds from the national government or donors rather than the intrinsic concern with climate change.

Stand-alone CCA activities in localities and sectors have been decreasing whilst consideration of climate change in sectoral development plans and projects remains marginalised. There is a pessimistic view on the future implementation of CCA policy in Vietnam (Interviewees NS1, SN1). Nevertheless, the decline in CCA implementation is in line with the reduction of Official Development Assistance (ODA) to Vietnam since it has become a middle income country (Thuy, 2015). This implies that CCA in Vietnam largely relies on international support. Unless there is a change in local funding priorities, external financial and technical support are therefore essential for CCA implementation. CCA actions in Vietnam, especially at the local level are largely determined by the availability of funds rather than the demand of dealing with threats to development.

9.8. Coordination and Collaboration

Both interviewees and government documents suggest coordination and collaboration among public agencies in CCA policy implementation are problematic. Due to the hierarchical governance tradition in Vietnam and ‘silo effect’, public agencies at the same administrative level do not cooperate (NGO representative, Interviewee NS2). The silo effect is very strong in Vietnam (Interviewee NS7, SN5). Information is mainly circulated vertically within a sector between central and local levels (e.g. provincial DARD reports to the national MARD), they only share information upon request from the provincial DONRE (Interviewee SP7). Respondent NS7 suggested that the root cause is what he described as the legacy of ‘peasantism’ in Vietnam, with everyone just paying attention to their own interests and ignoring others. Although there is a degree of overlap between some duties of the MONRE and the MARD collaboration between the two ministries is generally absent in inter-ministerial work (Interviewee NS3). This situation has wider implications, for example a DCC official within the MONRE noted that international agencies found it very challenging when dealing with

collaboration issues in Vietnam (Interviewee SN2).

9.8.1. Why another ‘layer’? The steering committees

Public policy implementation is often taken in an inter-organisational context in which the issue of coordination is significant, leading to the creation of specialised administrative agencies such as inter-ministerial committees (Howlett & Ramesh, 2003). When there are many policy actors of equal power involved in a particular policy issue such as CCA, the Vietnamese government at national and provincial levels often establish steering committees to direct these actors towards government intentions. Indeed, the Prime Minister of Vietnam adopted Decision 34/2007/QĐ-TTg in 2007 regulating the establishment, organisation and operation of inter-sectoral bodies which advise the Prime Minister on steering and coordinating important and inter-sectoral issues. Administratively, at the national level, this ‘layer’ is positioned between the GoV and ministries; in the provinces, it lies between the provincial people’s committee and departments (see chapters six and seven; and also figure 9.2 in section 9.10). Actor 1 and actor 2 (figure 9.1) do not horizontally collaborate, they need to be told to work together by higher level authorities that have the power to request collaboration. The horizontal coordination (actor 1 - actor 2) is problematic since agencies are ‘equal’ in power. In the literature, steering committees are seen as a coordination platform (Forino et al., 2018).

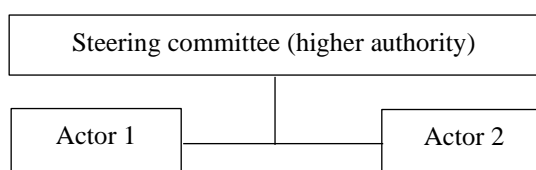


Figure 9.1: The need of a higher authority for coordination (source: Author)

As a consequence of fragmentation and sub-division of the administrative landscape, the coordination of activities has become more complex and disordered (Benedikter, 2016), and there is often a need for higher-level authorities to coordinate policy actors. In the Vietnamese context, coordination means direction (Gilfillan et al., 2017), therefore though being assigned as a lead agency in CCA governance, the MONRE is confronted by many difficulties in coordinating CCA policy making and implementation. The MONRE is seen as a weak government ministry compared to other sectoral ministries such as the MARD, Ministry of Finance (MOF), or MPI (Interviewees NS5, SN10). This observation is also confirmed in other research on environmental or climate change governance in Vietnam (Quitow, Bar, & Jacob, 2011; Zink, 2013; Zimmer et al., 2015) and is also reported by researchers in other contexts (Meadowcroft, 2009; Clar & Steurer, 2019). This situation poses a number of challenges for the MONRE in leading and coordinating CCA policy-level actions and project-level activities nationwide. In respect to the need for a national climate change steering committee, a MONRE official commented that a minister is unable to tell another minister what to do, and the direction must go through the National Climate Change Committee (NCCC) which is chaired

by the Prime Minister (Interviewee SN3). The establishment of the NCCC was drawn on the Decision 34/2007/QĐ-TTg.

9.8.2. The missing link: Regional coordination authority

Regional in the Vietnamese context means a level below national and above provincial. In the current Vietnamese administrative system, a regional authority does not exist though there are some regional-level public policies and programs (Gilfillan et al., 2017). There was limited evidence of cross-boundary coordination and collaboration in CCA policy implementation in coastal Vietnam although climate change impacts themselves are cross-province (see section 9.6 - the scale issue). CCA policy documents in both Hai Phong city and Soc Trang province do not mention the issue of collaboration with their neighbouring localities in delivering CCA actions. The need of trans-provincial coordination and collaboration in CCA has been raised by the GoV (GoV, 2014a), especially among provinces within the Mekong River Delta after the introduction of the Resolution 120/NQ-CP in 2017 (GoV, 2017a). However, it remains a notion in planning rather than practice. There lacks a formal regional authority in Vietnam to coordinate inter-provincial issues and as such CCA is regarded as one of the institutional barriers in CCA governance (Interviewee SN2). Other developing countries in Asia have similar problems. Viji et al. (2017) found that CCA policies in Bangladesh, India and Pakistan also did not pay attention to the issues of transboundary CCA, and this situation reflects the long-standing problem of managing transboundary issues. The issue of transboundary CCA significantly relates to water basin management (Milman et al., 2013; Tilleard & Ford, 2016). The regional coordination of CCA therefore must take into account both cross-boundary and cross-sector considerations, specifically water governance.

9.8.3. Decentralisation

There is an imbalance of financial allocations across sectors, and also across administrative levels, as most funds from the three national climate change programs have been used by national and provincial agencies. Only limited CCA funds have been transferred to district levels. For example, in the two case studies, only Hai Phong delegated CCA projects to district authorities while Soc Trang did not. No funds have been transferred from the state budget to the commune level for CCA activities in the five investigated communes in both Hai Phong and Soc Trang. There are many 'nos' at commune level, no money, no staff, no power (Interviewee SN1) against the fact that climate change impacts manifest themselves at this level. Districts and communes have only participated in some activities of afforestation projects owned by provincial-level agencies and some NGOs projects (e.g. CARE Vietnam). The situation in Vinh Chau district as well as in Do Son is similar to the case in Mozambique where Rosendo et al. (2018) found that district governments with low levels of economic activity and a low revenue base are unable to allocate funding for climate change response projects, which are regarded as being beyond their basic functions.

A representative from an international development partner recommended that local stakeholders need to be empowered to be involved in CCA policy implementation (Interviewee NS4). The empowering of local stakeholders, including non-state actors, relates to MLG theory which seeks to explain the diffusion of central government power to actors located at other territorial layers and to private actors and thus contains both vertical and horizontal coordination aspects (Bache & Flinders, 2004). In CCA policy implementation in coastal Vietnam, there was downward diffusion of power from national to local levels (responsibilities and funds) though it remains limited. There was scant evidence of sideways transference to non-state actors, the DCC within the MONRE has signed some agreements with NGOs networks (see chapter six) however, this is mainly with respect to collaborative issues rather than transferring some CCA tasks and funds to NGOs. In fact, some NGOs funded the DCC to carry out NGO project activities (Interviewee NS1). There is also no upward power diffusion in Southeast Asia and Asia that may influence CCA activities. The Association of Southeast Asian Nations of which Vietnam is a member, is not a supranational authority with respect to climate change and environmental issues as the European Union in Europe (Jordan, Wurzel, Zito & Brückner, 2003; Cockerham, 2010; Wettstad, Eikeland & Nilsson, 2012).

The transference of power and funds for CCA policy implementation from national and provincial levels to district and commune levels is necessary. However, practical questions are: how much authority are the national and provincial authorities willing to grant the district and commune levels?; and what institutional changes need to be made so that power can be transferred? Power in this context includes organisational structure, staffing, and most importantly, financial resources and authority. Theoretically, CCA responsibilities can be decentralised to district and commune levels however, the complexity of CCA as a ‘wicked’ problem and the lack of management capacity, make these two levels unable to fulfil their job. The framing of CCA as a technical issue and the ‘hard’ adaptation bias by policy-makers also discourage decentralisation processes.

9.8.4. Disruption of knowledge flow

Some respondents raised the issues of personnel rotation, which have been carried out at all four government levels and in all sectors. Changes in staffing have led to discontinuity of information and knowledge within organisations, although it is possible, but there is little or no evidence for it, that it may help with collaboration. Those who had been trained on CCA have often been assigned to non-climate related positions while new staff whose work relates to CCA have often not yet been trained on climate change issues (Interviewees SP12, SD6, SD4). The irregular CCA related activities at local levels also influence the knowledge accumulation of local officials. As a national official working for the MARD commented, directly implementing CCA projects provides officials opportunities to learn more about CCA (Interviewee SN10). As a new public issue, learning by doing is a common approach to improving the relevant knowledge base for CCA (Huq & Reid, 2007; Tschakert & Dietrich, 2010; Roberts et al., 2012).

In a study on CCA in Vietnam, Phuong et al. (2018) reported the problem of frequent bureaucrat rotation while there is also a lack of regular trainings. The problem has also been observed in other contexts, Ayers et al. (2014, p.302) termed it as “brain drain” of trained officials, which leads to “delays in knowledge generation and maintenance” in Bangladesh. In research on mainstreaming in Indonesia, Rahman (2017, p.120-121) described this phenomenon as a “lack of institutional memory” or “disruption of knowledge accumulation and preservation” and found that job rotations affected the sustainability of CCA projects.

9.9. Adapting to What?

9.9.1. Climate change adaptation as a response to a top-down mandate

CCA policy-level actions and project-level activities in Hai Phong and Soc Trang have been mainly developed and implemented in response to national policy direction and funds rather than localised impacts. Comprehensive assessments of climate change impacts were not found in the two case study locations but, theoretically, local CCA plans and projects should have been drawn on assessments of actual impacts on the ground. Potentially, the broader hierarchical governance system in Vietnam (Phuong et al., 2018) as well as the national programmatic approach (top-down) to climate change response employed by the GoV might have determined the ‘adapting to what’ issue in Hai Phong and Soc Trang. The situation in Vietnam being similar to that of China (Qi et al., 2008) where climate change response at the provincial level is administratively driven rather than being reactions to actual climate change impacts, unless it is seen in the immediacy of disaster situations.

9.9.2. Climate change adaptation = Disaster risk management +?

CCA policy at the national level has, to a large degree, been transformed to DRR actions on the ground. Sectoral and local CCA related policies and practices focus on climate extremes and variability rather than long-term climate change (see chapter three). In this sense, CCA is actually about adapting to what people have always adapted to rather than adapting to what might occur. However, government officials especially at the local level primarily perceive climate change in terms of disaster. Other influences on how local officials may frame climate change might come from the path dependence of past decisions, the history of an agricultural economy, the technical education background of senior government officials, and political intentions. The approach that public agencies have taken to CCA is more physical impact-focused than vulnerability/development-centred. This is evidenced by priorities given to climate resilience infrastructure investments, e.g. sea and river dike systems, rather than social welfare, livelihood diversification, and poverty reduction, i.e. the broad socio-economic dimension. This finding reinforces Rubin’s (2014) work, which reported that CCA in Vietnam is DRR focused.

CCA equals DRR plus long-term climate change risks or, in other words, CCA is DRR and beyond or

CCA = DRR+. In Vietnam, DRR is the core component of CCA, especially for local communities, whose first concern is disaster and other long-term climate change related issues come second (Interviewee NS4). This view of a non-state actor is shared by a senior government official working for the MARD, the lead government agency in DRR, who stated that disaster loss and damage must be addressed first, then CCA comes second (Interviewee SN9) (see also Kelman, 2015).

9.9.3. Climate change adaptation as additionality to development

Government officials at national level and the two coastal provinces and cities perceived CCA as additional to development, something which is an add-on to business-as-usual (BAU) development. This perspective was also shared by non-state respondents (e.g. Interviewee NS4). This has led to further demand for funds if CCA is mainstreamed to development. The root cause viewing CCA as an addition to development rather than being integral is related to the discussion above with respect to CCA in coastal Vietnam being primarily framed as DRR, i.e. dealing with climatic hazards rather than the socio-economic conditions that affect vulnerability to such hazards. In this regard, Robert Zoellick, the former President of the World Bank Group recommended that “[c]limate change policies cannot be the frosting on the cake of development; they must be baked into the recipe of growth and social development” (cited in USAID, 2009, p.47). However, such an approach remains more of an academic concept (see section 3.6.4; and also Ayers & Dodman, 2010) and has not permeated through the street-level bureaucracy of Vietnam.

9.9.4. ‘Hard’ adaptation bias: Cause and effect

The central government as well as Hai Phong and Soc Trang authorities view climate change mainly as an external physical threat, which requires technical CCA measures, while the socio-economic dimension of climate change vulnerability has been inadequately considered. This finding reinforces other climate change studies in Vietnam such as those of Fortier (2010), Bruun (2012), Rubin (2014), and Phuong et al. (2018), and is comparable to the end-point view of climate change vulnerability (O'Brien, Eriksen, Nygaard & Schjolden, 2007).

‘Hard’ adaptation bias in Vietnam is in line with the situation in other developing countries (O'Brien et al., 2007; Fankhauser & Burton, 2011; IPCC, 2014). This problem framing determines policy solutions, which largely focus on technical measures such as infrastructure development for DRR. The approach influences how climate change expenditure has been used and who (which public agencies) receive the larger share of the state budget (chapter six showed that it was the MARD and its local affiliates who govern DRR). In this regard, Huq and Burton (2003) and O'Brien et al. (2007) argue that how vulnerability is interpreted will direct the type of adaptation measures, which then influence decisions on what, how and who to fund, for example the problem framing determines the actors involved.

Fankhauser and Burton (2011, p.1043) state that there is “an inherent preference by adaptation

institutions for ‘hard’ structural adaptations, which are more visible and easier to identify than ‘soft’ behavioral or regulatory measures”. The visibility of ‘hard’ adaptation measures was reported by a number of state and non-state respondents in the present research (Interviewees NS6, SN9, SP1). The way CCA is operationalised in Vietnam results from the way the GoV (ministries and provinces) defines climate change problems to be addressed, which, as Ayers (2010) and Lindegaard (2018) argue, remains highly politicised.

However, the problem is not solely caused by the physical impacts of climate change but also non-climatic factors resulting from the socio-economic and environmental conditions, e.g. poverty. If taking this perspective, the targets of CCA are not only climate stimuli but also the welfare of vulnerable groups and sustainable development and solutions would then have been more holistic (Dupuis & Knoepfel, 2013). It appears that the GoV is under-estimating the complexity of adaptation as a social process by treating the ‘wicked’ problem as tamed by technical, infrastructural solutions. This, according to the IPCC (2014), may also create unrealistic expectations in respect of adaptation objectives.

Non-state and state research participants explained that the ‘hard’ adaptation bias in Vietnam arises because the main concern about climate change is sea level rise, therefore sea dykes need to be raised (Interviewees SP13, SD1). A number of senior government officials in Vietnam have a technical education background (Interviewee NS3). ‘Hard’ adaptations are visible by stakeholders and the general public (Interviewees SN9, NS6, SP1), and they bring immediate benefits whilst in contrast, ‘soft’ adaptation is more difficult to implement and does not yield visible short-term outcomes (Interviewee SP6). Local leaders have great preference to implement large scale, i.e. high spending, infrastructural projects (Interviewee SP2), they do not expect capacity building, communication, piloting projects (Interviewee NS2). According to Interviewee NS1 without infrastructural measures, urgent and short-term problems could not be solved immediately. The technocratic desire for visible solutions (Lindegaard, 2013) that drive ‘hard’ adaptation bias in Vietnam is also caused by path dependence. A UN representative commented that infrastructure investment in Vietnam had been given priority before the rise of climate change concern (Interviewee NS4). This path dependency therefore relates to the centuries of hydraulic management in Vietnam (Lindegaard, 2013), especially in flood-prone provinces and cities such as Hai Phong and Soc Trang.

The reliance of the local economy on the agriculture sector is also a root cause of ‘hard’ adaptation preferences (Lindegaard, 2013). Infrastructure CCA measures such as irrigation canals, dykes and embankment systems are closely related to agricultural production (Interviewee SN10). Some government officials in Soc Trang claimed that Soc Trang is an agricultural province therefore CCA in the agriculture sector has been given priority (Interviewees SP7, SP11).

The justification for ‘hard’ adaptation as addressing immediate needs of local communities raises further questions as infrastructure projects often take a long time to be completed, for example, building a dyke system might take several years. Furthermore, while visible, these projects are

unlikely to offer immediate results. Nevertheless, the trend of infrastructural investment preference in CCA is observed in Hai Phong, Soc Trang and across Vietnam. There could be other underlying drivers of infrastructural adaptation choice rather than immediate needs. In this regard, Bruun (2012) states that corruption has crept into climate change projects whilst Trinh (2015) raised a question as to how corruption affects investment decisions concerning CCA in Vietnam. None of the respondents in the present research directly mentioned the issue of corruption in CCA policy implementation in Vietnam, they did however, indirectly imply corruption by using the term ‘other benefits’ (*những lợi ích khác*) when implementing large scale, high spending projects.

The skewed investments in ‘hard’ infrastructure solutions in coastal adaptation in Vietnam has implications for current socio-economic development and future CCA. The infrastructural projects mainly deal with current or near-term climatic threats. Such investments therefore potentially hinder future CCA since they were not designed to cope with future changes in climatic conditions. They are therefore potentially a form of maladaptation, whereby current ‘adaptations’ leave fewer choices for future adaptation, the consequence of path dependency (Lindegaard, 2013; Wise et al., 2014).

Several respondents mentioned the combination of both ‘hard’ and ‘soft’ adaptation (Interviewees NS9, SP7, SD6). The IPCC (2012) suggesting the combination of the two approaches was necessary for successful CCA strategies. A number of coastal afforestation projects were invested from the national climate change programs in Hai Phong and Soc Trang provinces (chapters six and seven). Additionally, there was awareness raising, capacity building projects in localities and research projects at the national level. These are seen as ‘soft’ adaptation solutions. The number of ‘soft’ projects was greater than ‘hard’ adaptation projects but the latter received much higher spending. For example, one investment project in Soc Trang cost USD 7,500,000 (embankment building in Nga Nam district) while all four functional projects implemented by the Soc Trang DONRE cost only about USD 170,000 (see section 7.3.3, chapter seven).

Although infrastructure investment remains critical in CCA in Vietnam, paying more attention to ‘soft’ adaptation will potentially bring more benefit and NGOs, district and commune authorities, and residents would have more opportunities to participate in CCA policy implementation as ‘soft’ solutions are less technical and more inclusive. However, there is a political lobby in favour of the status quo of a ‘hard’ adaptation focus.

9.9.5. Climate change adaptation as a source of funds

The literature shows that governments take CCA actions due to the increasing damages from climate change impacts; pressure from international donors, NGOs, and residents; and learning from the experiences of other countries (Biesbroek et al., 2018b). However, something else other than the above has been driving local CCA policy implementation in coastal Vietnam. Namely, local government officials perceived climate change as a source of funds. As noted above, CCA actions at a local level

are not taken solely in response to climate change impacts but to attract grants from the central state budget and international donors. Empirical examination showed that there is a declining interest in climate change by local authorities compared to the 2008-2015 period (see section 9.7). Meanwhile, the accumulative impacts of climate change are increasing over time. This paradox is rooted in the abovementioned perceptions of local authorities. Reduction in funding from international and national sources to local CCA-related projects leads to reduction of interest in climate change, regardless of the increasing impacts of climate change in localities. There were political intentions behind the design and implementation of CCA policies in Soc Trang province and Hai Phong city. Nevertheless, this situation is not isolated to Vietnam or to developing countries. Storbjork (2007) studying climate adaptation governance in Sweden found that tackling climate change was often not the main driver behind climate change actions, and it was instead seen as a by-product of related initiatives. Similarly, Zimmer et al. (2015) in their research on climate change policy in Vietnam stated that policy-makers often pursue several objectives, of which climate change response is only one. The motivations of policy actors and stakeholders are always complex and there are, of course, real concerns from several actors about the potential impacts of climate change in Vietnam. However, there is also ‘exploitation’ of the crisis for less noble objectives that need to be uncovered (Fortier, 2010). Referring to the seminal question of ‘adapting to what?’ (Smit et al., 1999), findings from the present research show that the ‘what’ appears not to relate to climate change, variability, or extremes, but financial needs. Local authorities look at central funding as a way to develop their own projects rather than those intended for the ‘greater good’.

9.9.6. Living with climate change

There has been a paradigm shift from fighting climate change to living with climate change at national policy level and in Soc Trang province. The government Resolution 120/NQ-CP adopted in 2017 highlights the regional development approach that emphasises that climate change and sea level rise are inevitable trends, and that humans must live with and adapt to them, and turn challenges into opportunities (GoV, 2017a). Some district government officials in Soc Trang noted that we cannot run away from climate change but have to live with it (Interviewees SD4, SD6). However, this mindset was not found in Hai Phong, instead municipal and district officials used the term ‘fighting climate change’ (*chống biến đổi khí hậu*) (Interviewees SP1, SD1). Hai Phong officials hold the mindset of controlling the environment/climate change (Lindegaard, 2013) whilst Soc Trang officials have the mindset of living with climate change (Pelling, 2011). The former view climate change as an external threat to development, the latter see climate change as a part of development. Interviewed respondents in the two case studies showed that Soc Trang’s officials were more knowledgeable on climate change issues than those of Hai Phong. This may partly explain the different mindsets. Additionally, due to the geographic location, Hai Phong regularly faces more typhoons than Soc Trang (Takagi, Thao, Esteban, Mikami & Ca, 2015), as local officials relate climate change to disaster, the Hai Phong officials therefore hold a mindset of fighting both climate change and disaster.

9.10. Who Adapts?

There is a wide variety of state and non-state actors involved in CCA policy implementation in Vietnam. Besides the formal government agencies at all four levels; there are the political party (the CPV), NA, international donors, local and international NGOs, universities, and firms involved in the CCA policy processes. These actors and stakeholders are summarised in figure 9.2. Although international donors and NGOs are important in CCA policy implementation, the role of the national and local governments remains central to CCA policy implementation in coastal Vietnam. Indeed, government has constitutional mandates, policy instruments, and resources at their disposal that are indispensable for CCA policy implementation (Phuong et al., 2018; Araos, Ford, Berrang-Ford, Biesbroek, & Moser, 2017; Jordan et al., 2015; Biesbroek et al., 2018b).

9.10.1. Climate change adaptation policy community

CCA has been mandated to the existing NRE sector since 2008. The CCA policy community includes MONRE at the national level, DONRE at provincial level, and DIONRE and individual bureaucrats working on NRE issues at the commune level. In the GoV system, MONRE is a weak government agency with limited authority to coordinate line ministries (Gilfillan, et al., 2017) (see section 9.8).

As discussed in chapter three, a policy community is one configuration of policy networks which are a cluster of organisations connected by resources and/or power dependencies. Policy networks include issue networks, producer networks, intergovernmental networks, professional networks, territorial networks and policy communities. Figure 9.2 represents the CCA policy networks in coastal Vietnam. The most integrated type of policy networks is the policy community - policy actors who have a common identity, interest or focus (Rhodes, 1997). The CCA policy community consists of sector specific policy actors although there are other policy communities involved in CCA policy implementation in Vietnam including the agriculture policy community (led by MARD), and the planning and investment policy community (led by MPI).

Once mandated to the MONRE, CCA came to be viewed as an environmental rather than a developmental issue. The idea of shifting CCA from MONRE to the MPI could be considered by the party and government leaders (or better, CCA should be included in the official mandates of all government ministries and localities). Three arguments would support such a move. Firstly, MPI is an economic ministry charged with public investment and socio-economic development planning, and therefore there are more opportunities for CCA to be mainstreamed into development. Secondly, MPI is already assigned to lead the task of guiding the mainstreaming of CCA into development, in the long run, this is more effective and sustainable than stand-alone climate change programs. Thirdly, the MPI is a stronger government ministry compared to MONRE and this will facilitate its coordination in CCA implementation.

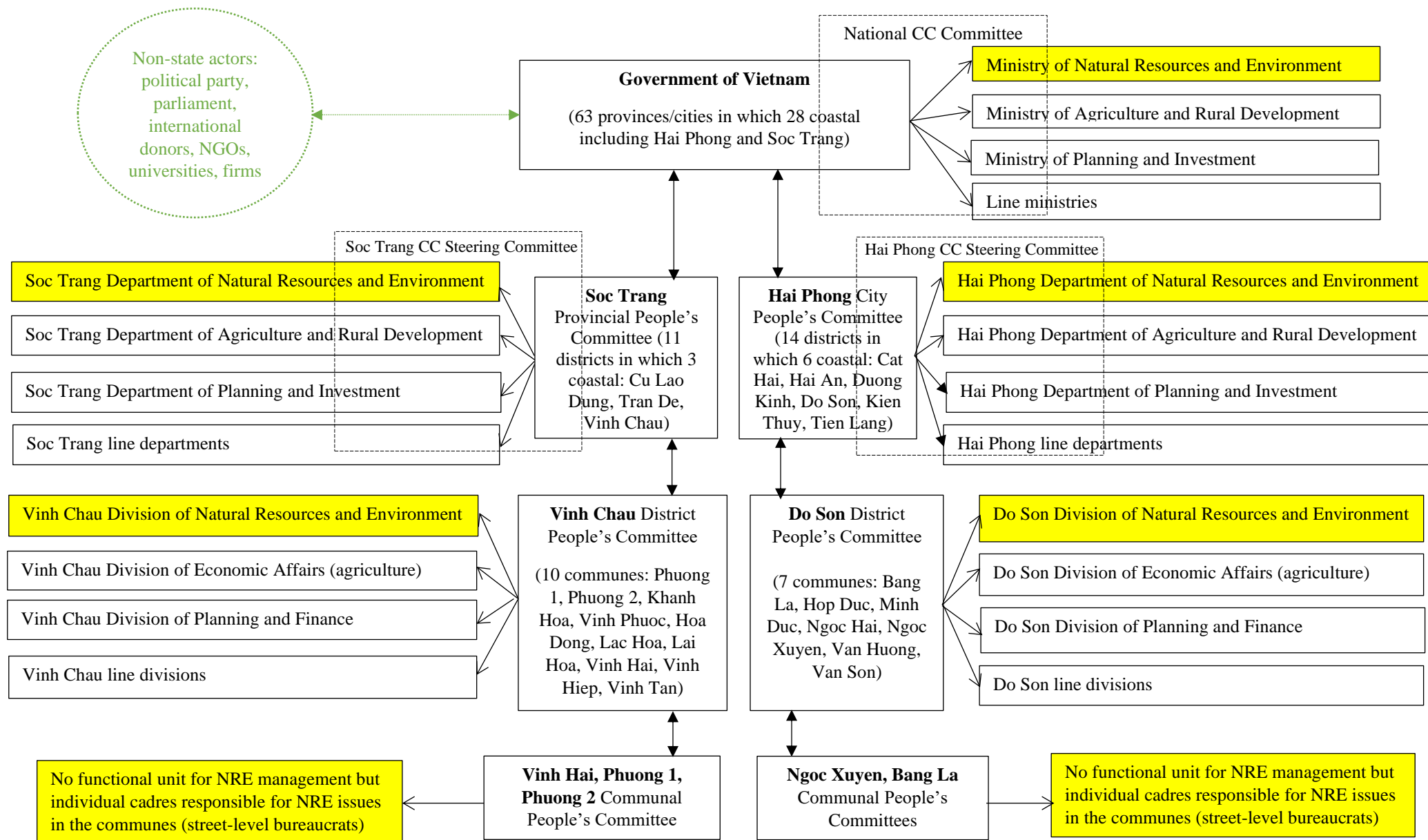


Figure 9.2: CCA policy implementation structures in Vietnam, Hai Phong and Soc Trang; the 'yellow' is the CCA policy community (source: Author)

9.10.2. The role of the political party

The CPV is the most important force in Vietnamese politics. Although the CPV is a political organisation that is not part of the state's administrative system it has a critical role in the public policy process in Vietnam. The party structure is parallel to the government's structure from national to communal levels. The relationship between the CPV and the state (the NA and the GoV) has changed overtime however, the party has been and will remain central in the public policy process in Vietnam for the foreseeable future (Shanks et al., 2004). It is widely recognised that political commitment and party leadership are key factors for the success of any public policy in Vietnam (Hoa, 2016). The role of the CPV in staffing political legislatures and executives allow the party to influence public policy formulation and implementation. The CCA policy process within the Vietnamese political context is no exception. For instance, Resolution 24/NQ-TW by the CPV in 2013 is seen as a key political direction for climate change actions of government agencies at all levels. Most national, provincial, and district government officials mentioned this party policy document in their interviews.

Climate change, including CCA, is a matter for the entire political system in Vietnam. Document analysis showed that the flow of the party's policy direction from the national to the district levels was smoother and faster than government's direction. For example, when the CPV adopted Resolution 24-NQ/TW in June 2013, the Hai Phong's Party Committee issued its plan to implement the Resolution in October 2013, three months after the CPV's policy. In respect of the implementation of the government NTP-RCC which was adopted in 2008, the Prime Minister requested provinces and cities to develop and adopt their climate change action plans by 2010. Hai Phong city published its climate change plan in 2014, four years after the Prime Minister's direction. However, political direction does not directly create concrete results on the ground.

There is a phenomenon observed in Vietnam that government ministries lobby in order to have sectors included under their administration via a party resolution or directive, e.g. currently the climate change sector has one CPV resolution, the environment sector has two resolutions and one directive, and the forestry sector has one CPV directive. Having such a resolution in effect provides a ministry with more political power in coordinating, developing and implementing its sectoral policies, including the powers in mobilising resources and M&E implementation of stakeholders. A party resolution on a particular policy issue enhances the political policy's significance and then facilitates its implementation (Interviewee NS8). This phenomenon is rooted in the important role of the CPV in public policy processes of the State. However, the role of political decisions in CCA policy implementation is not unique to Vietnam, Vogel and Henstra (2015) found that political will is a crucial enabling condition for CCA policy processes and building political support is important for implementation success. Seeking a party resolution in the Vietnamese context is therefore about forming political support.

9.10.3. Role of the intermediate level

CCA policy-making and implementation are governed by actors at the ‘top’, which are the NA, GoV, MONRE and line ministries. However, they are collective institutions and CCA administration is actually delegated to bodies within ministries. The work performance of these bodies and their staff is critical to CCA policy process.

The Institute of Meteorology, Hydrology and Climate Change (IMHCC) and Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE) are two research institutes under the administration of the MONRE. In 2007, the IMHCC was tasked with preparing a NTP to respond to climate change, which was then approved by the Prime Minister under Decision 158/QĐ-TTg in December 2008. This was seen as the first national climate change policy document in Vietnam. The ISPONRE was responsible for the preparation of party Resolution 24-NQ/TW which was then adopted by the CPV in 2013. Climate change policy documents were prepared by institutions within the MONRE for higher authorities such as the GoV, NA and the CPV which then reviewed and made final approval decisions. The research institutes under the MONRE’s administration also play a significant role in the climate change policy processes. The important role of ministerial/sectoral research institutes in the public policy processes in Vietnam, and which is different from much Western public policy making, was also observed by Shanks et al. (2004). The top-down and bottom-up conventional approaches to public policy implementation therefore do not entirely capture policy implementation in Vietnam. In some cases, the observed approach is ‘from-the-middle-out’. In other words, the intermediate-level bureaucracies and bureaucrats play an important role in the policy process in Vietnam.

9.10.4. International sphere of influence

International policy actors have significantly contributed to shaping the climate change policy landscape in Vietnam as well as policy implementation (Zink, 2013; Zimmer et al., 2015; also Interviewees SN1, SN3). Benedikter (2016) argues that there is rarely a public policy sector in contemporary Vietnam that remains without the extensive involvement of international development partners (donors) such as the WB, UNDP, Asian Development Bank (ADB), and foreign governments. CCA is no exception. Indeed, the first climate change policy in Vietnam, the NTP-RCC was funded by the Danish Government (Zink, 2013). Most large-scale investment CCA related projects at the local level have been funded from the SP-RCC which is financially contributed to by international donors. The involvement of international development partners through the SP-RCC created a policy dialogue forum among key policy actors and stakeholders which formed policy networks besides the formal institutional arrangements for climate change administration. Donors have also applied a multi-sectoral framework rather than a conventional single sectoral approach. ODA projects run across some sectors with demonstrations in specific localities. This approach helps coordinate different actors. Donors also often request more involvement from private sectors in project implementation, gradually

creating public-private partnerships (PPPs). The role of ODA therefore goes beyond financial matters and influences the governance of public issues as well as CCA in Vietnam.

Interviews of commune cadres in Vinh Hai and Bang La revealed that they have been involved in several CCA activities managed by NGOs rather than state authorities. Informal talks with local residents showed that they were not aware of abstract government climate change policies but some specific activities carried out by NGOs. This is due to almost all climate change related projects identified in provincial/municipal action plans being assigned to provincial-level government agencies and some district authorities, whereas none were channelled to communal authorities. Additionally, many of these projects were connected to physical infrastructure developments, which did not immediately impact the lives and livelihoods of local residents. NGOs in contrast focused on the poor and the current impacts on their daily lives, assets and income. They took CCA actions with an opposite approach to the impact-based approach by public agencies. They employed community-based and ecosystem-based CCA options which are vulnerability-focused, and target the poor, marginalised and most vulnerable groups (Interviewees SN1, SP1). According to O'Brien et al. (2007), NGOs frame vulnerability to be more social than scientific, the approach to adaptation they take is therefore different from government, the UNFCCC and IPCC technological adaptations to climate change. Whilst government agencies focus on 'infrastructure' solutions to climate change impacts, NGOs target 'non-infrastructure' measures with community-based climate change initiatives. Fankhauser and Burton (2011) commented that the bias toward 'hard' adaptation can be offset by allocating some funds through NGOs. In Vietnam, international donors have also funded some small scale projects carried out by NGOs

Government agencies have recognised the roles of NGOs in the CCA policy-process. This is reflected through the participation of NGOs in policy consultative workshops. NGOs have also signed memorandums of understanding with the DCC, and the MONRE on relevant CCA activities. Most national and provincial government officials have acknowledged the role of NGOs (Interviewees SN1, SN2, SN9). Representatives from NGOs have also noted the openness and welcome from government agencies towards NGOs involvement in climate change policy making and implementation (Interviewees NS1, NS2, NS3). CCA mainstreaming emergence in the policy and planning process in Vietnam has been based on bottom-up approaches and initial work on mainstreaming was undertaken by NGOs and donors through specific projects before 2008 (Interviewee NS1). This finding is similar to that of Ayers et al. (2014) in Bangladesh, where NGOs have played an important role in mainstreaming, including providing information, knowledge and demonstration projects which fed lessons into broader CCA policy processes.

Different to state actors, the international donors and NGOs have funds and knowledge, but no formal mandate to take actions in the CCA policy implementation process in Vietnam. They are not decision-makers but play important roles in CCA policy-making and implementation in Vietnam. However, the

extent of NGOs' involvement in the CCA policy implementation process depends on: (1) legal regulations on the establishment and operation of NGOs in Vietnam; (2) the approach to adaptation taken by government agencies, for example the 'soft' approach will create more opportunities for NGOs's participation than the 'hard' adaptation approach which focuses on infrastructure investment; and (3) the willingness of the state to outsource its CCA tasks. The GoV should consider NGOs as a bridge between the central and local level, instead of largely funding government agencies to implement climate change-related projects, the GoV can transfer funds and outsource some types of tasks to NGOs. In this regard, the multi-level conceptualisation of governance that emphasises the three-direction dispersion of national government power and control: upwards to international stakeholders; downwards to provinces and communities; and outwards to private actors (Pierrer & Peters, 2000; Bache & Flinders, 2004), may prove beneficial to CCA.

Howlett and Ramesh (2003) highlighted the importance of international actors in domestic policy processes. National policies as well as policy actors' preferences are increasingly shaped by international forces. However, the public policy literature does not treat the international sphere as an integral component of the policy process but an external factor to which national policy actors respond. Similarly, Steinberg (2003) identified two major spheres that determine the environmental policy for developing countries, the international sphere and the domestic sphere. Nevertheless, the international setting (e.g. PA, IPCC and Conference of the Parties (COPs)) and donors (e.g. ODA) have played an essential role in CCA policy implementation in Vietnam. They could be seen as an integral component in the CCA policy process. Any account of CCA policy change in contemporary Vietnam therefore needs to recognise the influence of the international sphere including the involvement of NGOs, even if only in terms of the funding they provide. Although it can be argued that the transfer of funds is also related to a transfer of ideas.

9.10.5. Role of street-level bureaucrats

Climate change impacts are particularly felt at the commune level. Local government officials have knowledge on place-based exposure and sensitivity to climate change risks, and therefore should be involved in designing and implementing CCAs which meet community needs (Vogel & Henstra, 2015). CCA project-level activities should be carried out by street-level bureaucracies and bureaucrats however, the present research found that they have played only a very limited role in CCA policy implementation in coastal Vietnam.

In accordance with the current legislation on local government structure (the *Law on organisation of local government 2015*), at the commune level, there are no functional agencies established to assist the People's Committees to govern public issues including CCA. Instead, individual civil servants are assigned specific tasks by the commune leaders. This is different to the governmental structures at the three higher levels (divisions established at district level; departments at provincial level; and ministries at national level). The national government (through the Ministry of Home Affairs) even

stipulates the job description of street-level bureaucrats under Circular 06/2012/TT-BNV in 2012. Interviews of commune cadres found that in each commune there is usually one cadre working on land use, and urban and environment issues. Currently, climate change is not mandated in job descriptions of individual cadres at the communal level. This cadre however, will take climate change related activities (if any) upon request of commune leaders (Interviewees SC1, SC4). The institutional capacity of district and commune authorities is therefore too low to deal with climate change issues unless it is mainstreamed with other duties. Phuong et al. (2018) found similar problems in local authorities in Vietnam.

According to Lipsky (1980) street-level bureaucracies and bureaucrats are governmental bodies and officials that interact directly with the public. They are the last chain in the implementation process, creating policy delivery. Citizens directly experience government policies through the day-to-day work of these frontline bureaucrats. People at large are not aware of abstract policy documents made by a minister. It is therefore the specific actions and decisions of street-level bureaucrats when they are dealing with citizens that represent government policies. However, the role of street-level bureaucrats in implementing CCA policy in coastal Vietnam was not observable as in other sectors such as healthcare, land use or education in the five communes under investigation. It is therefore argued that the theory of street-level bureaucracy introduced by Lipsky (1980) is not applicable in the CCA sector, at least in the current Vietnamese context (as of 2019). This is because commune cadres do not directly deliver any public services relating to CCA to individuals and organisations. The root cause is related to the framing of the nature of climate change as a public problem, which does not immediately affect people's lives and livelihoods and as a future problem with degrees of uncertainties. Education, water, and healthcare sectors provide public services in relation to what are regarded as the essential needs of the society whilst the climate change sector does not embody that function. In respect to the response of local people to climate change, Giddens (2009) states that people will not be moved to do anything about climate change until it is very bad and too late, the general public and many government officials still do not see climate change as an immediate issue requiring urgent attention and it is instead regarded as a remote problem (Interviewees SC1, SN10). The exclusion of street-level bureaucracies and bureaucrats in CCA policy implementation has also resulted from the framing of CCA as impact-based adaptation with technical measures rather than vulnerability-based adaptation, with a focus on the underlying causes of climate change vulnerability such as livelihood, education, and healthcare.

The limited role of street-level bureaucracies and bureaucrats in coastal Vietnam is in line with findings from other studies on local adaptation, which also note that local governments usually lack the capacity to effectively formulate and implement adaptation policies (Measham et al., 2011; Vogel & Henstra, 2015; Phuong et al., 2018). The present research also found that district and commune authorities have not been provided with favourable institutional, financial, or technical conditions to involve themselves in formulating and implementing CCA policies. Paying more attention to 'soft'

adaptation solutions would provide more opportunities for street-level bureaucrats to be involved in the CCA policy implementation process.

9.11. Climate Change Adaptation Finance

Implementing organisations should have adequate resources, clear functions, and authority to execute policies (Pressman & Wildavsky, 1973). Similar to other public policy issues, CCA implementation requires financial resources to be allocated along with appropriate authority and capacity (Corfee-Morlot et al., 2009). The main sources of funds for CCA in Vietnam are: (1) the three national climate change programs (NTP-RCC, SP-RCC, and Science and Technology program for NTP-RCC); (2) international donors (ODA) and NGOs; and (3) sector and local budgets through annual socio-economic development plans (SEDPs). Most CCA projects have been funded from the first source, some from the second, and little from the last source since sectors and localities are unwilling to use their own budgets for CCA. This finding was also reported by Nguyen (2017) in a study on climate change response in Vietnam. Unlike some other developing countries which have established specific climate change or CCA funds such as the Climate Change Trust Fund and Climate Change Resilience Fund in Bangladesh (Rahman & Tosun, 2018), Climate Change Fund in Mexico, and the Kenya Climate Fund (Oulu, 2015); the GoV has employed a programmatic approach to financing CCA. These latter examples show the importance of redistributing public resources to reflect the reprioritisation of government CCA policy (Fankhauser & Soare, 2013; also see section 3.7.2 in chapter three).

As noted above, a number of the invested CCA related projects in Vietnam and the two case studies reflect a ‘hard’ adaptation bias. Sectors, line ministries, and provinces have been making use of climate change funds to realise their development objectives. As has long been noted, “there is concern that scarce funds for mitigation and adaptation will be diverted into more general development activities” (Klein et al., 2005, p.584). The work of MONRE is focused more on policy-level actions (climate change policy development) and policy-level activities (projects) are mostly implemented by line ministries and provinces. Research on adaptation projects in Bangladesh by Rahman and Tosun (2018) found a similar division. The government agency which is responsible for administration of climate change plays the role of a coordinator in policy implementation rather than being an active implementer. In this regard, a senior government official commented that the MONRE manages but does not spend many climate change funds (Interviewee SN1).

Some state and non-state actors had a pessimistic view on the future of CCA policy implementation, mostly due to limited funds, staffing and authority (Interviewees NS1, SN1, SD4). Most CCA financing comes from the state budget (international funds through the SP-RCC are also merged with the state budget). However, government funding meets only approximately 30% of adaptation needs (MONRE, 2015a). Funds have been mainly allocated for urgent issues such as DRR, while long-term CCAs are expected to gain support from the international community and the private sector (MONRE,

2015a). However, ODA for Vietnam has been decreasing since the country became a middle-income nation (Thuy, 2015), while private sector involvement in CCA is not expected in the near future due to the low return of investment in CCA whilst incentives for private investment in CCA are not yet available (Interviewees SN1, SN2).

Chambwera et al. (2014) suggest that the role for government is to provide a policy environment that facilitates private adaptation by incentivising the right actions and removing potential barriers. Similarly, Lesnikowski et al. (2017) argue that one of the roles of government CCA policy is to create an enabling environment for non-state actors to involve themselves and invest in CCA. However, some interviewees note that a lack of funds is not the key problem (Interviewees NS4, SN2). Indeed, Phuong et al. (2018) in a study on CCA in Vietnam found that it is not necessarily the amount of money that is a barrier but how money is allocated for CCA policy implementation at the local level. The authors argue that in addition to seeking more funds, attention should be paid to using existing financial resources effectively. Indeed, due to the poor M&E of CCA policy implementation, the efficiency and effectiveness of CCA related projects remain unknown. As a representative from the Soc Trang DONRE commented, what they believe to be the case with regard to project implementation is only based on other agencies' written reports on implementation progress of climate change projects, there is no mechanism providing for inspection of what is reported (Interviewee SP6).

In the long run, the GoV should pay more attention to mainstreaming CCA into development, making sectors and localities consider CCA as an integral part of development. Stand-alone climate change programs are necessary in the early stage of CCA policy agenda however, they appear not to be effective and sustainable. There is still a need for national CCA policies which provide strategic directions and create an enabling environment for CCA efforts however, provincial and sectoral climate change actions plans might not be necessary. Instead, the development plans of sectors and localities must mainstream climate change considerations in objectives and solutions to specific projects. This is a shift from *policy of CCA* towards *policy for CCA*. In the Vietnamese context the approach is not to start with climate change adaptation but development which considers climate change issues. This is similar to development-based adaptation (Ayers & Dodman, 2010), and using vulnerability as a starting point (O'Brien et al., 2007) for CCA. If CCA is sincerely mainstreamed into development then the barrier of a lack of funds for CCA may be substantially addressed.

9.12. Monitoring and Evaluation: Feedback Mechanism

There is no systematic and regular M&E of CCA policy implementation in Vietnam (Interviewees NS7, NS7, SN9) but reporting (Interviewee NS7). In an official letter sent to the MONRE in 2015, Soc Trang province stated that M&E of the implementation of the NTP-RCC were not paid adequate attention by the provincial government agencies and only irregular reports were prepared upon national request (Soc Trang PPC, 2015). This is in line with the situation in many other countries (Tompkins, Vincent, Nicholls & Suckall, 2018; Ford et al., 2013; Mustelin et al., 2013) and may also

reflect that monitoring and evaluation methods for CCA are still in their nascent stage (Mustelin et al., 2013).

Bottom-up feedback of CCA policy implementation has occurred via three pathways: paper reporting; meetings; and workshops. The last two pathways have been widely organised in Vietnam (Zink, 2013; Benedikter, 2016; Phuong et al., 2018). Conferences and workshops are an important means to disseminate and articulate climate change information. Phuong et al. (2018) stated that meetings, and workshops are a feedback mechanism in the coordination between the national and lower levels. Since the introduction of the NTP-RCC in 2008, numerous national, regional and provincial-level workshops relating to climate change impacts, response options and science or capacity-building have been held by government agencies across the country (the author attended a one-day, regional workshop on 29 August 2017, in Hanoi on the implementation of the PA during fieldwork). Universities, NGOs, and international development partners have also organised workshops on a variety of topics on climate change from science to community-based adaptation (CBA) initiatives. For example, on 26-27 September 2017, the GoV convened an international conference on sustainable and climate-resilient development of the Mekong Delta of Vietnam, which later resulted in a government Resolution on sustainable and climate-resilient development of the Mekong Delta (Resolution 120/NQ-CP in 2017).

Reporting itself is not without problems. None of the commune interviewees mentioned their reporting to the district level, and several district respondents noted with respect to reporting to the provincial level that, if reported, climate change is not a separate paper but was included in a general report on NRE management. A provincial official in Soc Trang noted that DONRE only requested provincial departments to provide information and district and commune levels did not have to report on their climate change policy implementation (Interviewee SP8). The current reporting system is formal and limited to within government agencies, even within government agencies, only ones which have been implementing 'climate change' projects have to report. The routine is no climate change projects, no report. Additionally, reporting is ad-hoc, not regular (Interviewee SP7). Phuong et al. (2018) found similar phenomenon, stating that the only mechanism through which feedback across levels is organised is through formal reporting, with the effectiveness of this mechanism being questionable. Information sharing across government agencies at the same level is also limited due to the 'silo effect'. Feedback is therefore from the middle-up rather than the bottom-up and there is a disconnection in communication across all four levels in CCA policy implementation in Vietnam. Ampaire et al. (2017) reported similar problems in Uganda as contributing to policy-action gaps in CCA.

The quality of the reports is also questionable with general statements being the norm, mainly because there is an absence of specific indicators for performance assessment (Interviewee NS6). As Biesbroek et al. (2018b) observed, government tends to report government-driven and planned adaptation, leaving less room for autonomous adaptation, thus portraying a skewed picture of CCA efforts taking

place on the ground. The total CCA efforts of society are not stocktaked and reported. Mentioning the problem of formal reporting practice in Vietnam, Benedikter (2016) states that reports are poor in terms of contents and there is inadequate evaluation of what has been done, while statements of what will be done are vague. Reporting therefore appears to be a rhetorical exercise of government agencies aiming to show off their commitments and responsiveness rather than being an attempt to genuinely improve policy-making and practice.

9.13. Intermediate Positions in the Policy Process

Provincial and municipal authorities connect national CCA policy intentions and climate change impacts on the ground. This is referred to as an intermediate position (Lindegaard, 2013). Hai Phong city and Soc Trang province responded differently to the national climate change policies and this may reflect a certain degree of discretion in implementing national climate change policies. Besides the matter of discretion and autonomy in governing climate change in localities, the differences in progress of CCA policy implementation in Hai Phong and Soc Trang could be a result of different leadership factors. Shanks et al. (2004) and Eucker (2011) both found that leadership at the provincial level significantly determines how policies are interpreted and put into effect. The late introduction of the climate change action plan in Hai Phong, four years after the Prime Minister's direction, suggests a low willingness and commitment of the Hai Phong authority to addressing climate change. The decentralisation of fiscal planning and management between central and local authorities in accordance with the *Law on state budget 2015* might have also facilitated the autonomy of the provincial governments. Theoretically they could, to some extent, be able to decide on investments in CCA within their localities without interference from the national government, especially with investments funded from their own budgets. However, as discussed above, both case study authorities mainly used funds from the central budget or benefited from NGOs' projects rather than their own financial resources for CCA projects.

Climate change policy-level actions in Hai Phong city were less progressive than in Soc Trang province. There were four municipal policy documents in Hai Phong whilst Soc Trang had six policy documents in place. Additionally, Soc Trang had developed and issued its main climate change policy in 2011, three years earlier than the introduction of the same policy type in Hai Phong. However, in respect to project-level activities, there were slightly more CCA related projects in Hai Phong (ten) than in Soc Trang (eight). It is noticeable that Soc Trang is one of the poorest coastal provinces/cities in Vietnam, in contrast Hai Phong is among the richest (in 2015 the poverty rate (% of population) in Hai Phong was 2.9% compared to 12.0% in Soc Trang) (General Statistics Office of Vietnam, 2017a). It therefore appears that economic conditions did not substantially influence the formulation and development of climate change policies (plans) at provincial/municipal level. However, carrying-out the specific projects identified in those action plans requires enormous capital investment. For example, the action plans in Soc Trang identified 25 projects with a total estimated budget of USD 80

million thus a single project would need investment of about USD 3.2 million for implementation whilst the preparation of the action plan document cost only USD 72,000. A report by Soc Trang province submitted to the MONRE in late 2015 also revealed that few projects out of the 25 have been allocated funds for implementation (Soc Trang PPC, 2015). The fact that the climate change action plan in Hai Phong was introduced much later than that of Soc Trang and that the number of project-level activities in Hai Phong were higher than those of Soc Trang also raises questions as to the actual role of the climate change action plan in directing specific CCA activities. Climate change policy implementation at the local level therefore lags far behind formulation. A number of climate change strategies and plans were formulated and adopted however, the implementation of these plans remains under-funded. This is not only the case of Vietnam but in other developing countries as well (IPCC, 2014; Rosendo et al., 2018). Overall, it seems that CCA planning at local level is symbolic.

Climate change impacts in the two case studies are different since impacts depend on vulnerability and exposure. For example, Soc Trang experiences fewer typhoons than Hai Phong due to its location (Takagi et al., 2015). Theoretically, adaptations should be different between the two locations. However, the climate action plans of Hai Phong and Soc Trang showed similarities in CCA approach and specific measures with both localities focusing on coastal afforestation and sea dyke building. This implies that local climate change contexts have not determined the contents of the climate change action plans in Hai Phong city and Soc Trang province. Instead, external factors have determined CCA policy implementation processes rather than internal. The former are national directives, funding, and information, while the latter are localised impacts and the voices of bureaucrats at district and commune levels as well as the general public. CCA policies in Hai Phong and Soc Trang have been developed and implemented based on non-climate factors rather than assessments of climate change impacts in the localities and climate change scenario. A similar situation was found in Queensland, Australia, with CCA policies being developed without the use of climate change science but being based on socio-economic priorities of government (Tangney, 2015).

Though adopting some plans in relation to climate change response, the political commitments of both Hai Phong and Soc Trang authorities to addressing climate change remain low. As an NGO respondent commented, if local authorities are willing to address climate change issues, they should allocate funds from their own budgets for CCA activities (Interviewee NS1). Hai Phong and Soc Trang confront the dilemma of high public investment demand but low local resources, especially for Soc Trang where central government grants 70% of its investment capital (Interviewee SP11). The two localities have huge demand for public investment in education, healthcare, transport, and economic development with climate change ranked low in the priorities for investment. The common mindset of local governments is they will take CCA actions if funds are provided (Interviewees SN1, SN2). This explains the limited CCA project-level activities in Hai Phong and Soc Trang. CCA has become a local government responsibility however, specific CCA project implementation depends on the availability of funds from national programs and international donors. When there are more

immediate priorities, decision-makers typically focus on the most pressing issues and invest in proposals that will create short-term gains (Vogel & Henstra, 2015). Again, however, the problem of financial constraints could potentially be substantially addressed if CCA was mainstreamed into education, healthcare, transport, and economic development decision-making, making CCA an integral part of these sectors.

9.14. Key Barriers to Climate Change Adaptation Policy Implementation in Coastal Vietnam

The common barriers to CCA policy implementation reported by interviewees are lack of funds, staffing, authority, information and knowledge, and collaboration among policy actors and stakeholders. Similar barriers to effective CCA policy implementation were also found in other developing country contexts, such as in Uganda (Ampaire et al., 2017). However other interviewees also stated that limited fund is not the main problem (Interviewees NS4, SN2). Indeed, a number of investments from climate change programs have been used for purposes other than CCA (see section 7.2.3 in chapter seven). The matter should be of concern because of the need to use the existing funds effectively and efficiently. Furthermore, sectoral and local authorities should pay more attention to seeking international funding opportunities such as from the Green Climate Fund (GCF).

Although the hierarchical governance mode ensures some degree of consistency and coherence in CCA framing and measures across sectors and levels (Phuong et al., 2018), multi-level administration can also delay CCA policy implementation as lower level authorities need approval from higher level authorities especially in relation to funding from the state budget. Steurer and Clar (2018) argue that MLG hinders bottom-up initiatives and self-organisation in CCA. Additionally, the more actors involved the more complicated the implementation process and the greater the need for effective coordination.

With respect to horizontal CCA policy implementation and the mainstreaming of CCA into development, the main barriers are a lack of legal regulations and workable guidelines and the ‘silo effect’ and institutional fragmentation (also see Knaepen, 2013). These factors have caused inaction, delay and/or symbolic response in mainstreaming implementation by non-climate sectors especially at project level. Similarly, Vogel and Henstra (2015) claim that CCA mainstreaming is hindered by the functional fragmentation of modern governments and the sectorised style of working. However, there also exists several opportunities for CCA policy making and practice in Vietnam. Firstly, unlike efforts to reduce GHG emissions, which inevitably generate resistance from industries that incur major costs (Girod, van Vuuren & Hertwich, 2014), adaptation is usually not subject to opposition from the business community. This potentially enhances the legitimacy of CCA policy. Secondly, there have been changes in international climate change frameworks on the role of adaptation in climate change response. This is exemplified through the PA adopted in 2015. Consequently, more attention is being given to CCA from political stakeholders (Lesnikowski et al., 2017). International organisations including UN agencies have also become more interested in CCA, reflected through increased CCA

investments through adaptation funds such as the GCF.

9.15. Revising the Initial Conceptual Framework

A conceptual framework was created which encompasses elements of MLG, policy implementation, CCA, and the Vietnamese public governance context. It showed how CCA policy should be implemented in Vietnam on the basis of implementation theory (figure 4.5 in chapter four).

Based on the research findings, a revised version of the conceptual framework is shown in figure 9.3, which reveals how CCA policy has been implemented in practice in coastal Vietnam. There are now no project-level activities in the horizontal implementation process, the linkage between horizontal actions and concrete measures on the ground to reduce the impacts of climate change on sectors and localities is weak (dashed line). A DRR sub-box has been added as it is one of the ‘actual targets’ of CCA actions. In the vertical implementation process, the role of district and commune levels is now more limited, with reporting mainly from provincial to central level. The feedback from climate change impacts on the ground to CCA policy formulation and implementation is found to be weak in coastal Vietnam (dashed line). There was no evidence of feedback in the horizontal implementation process. The interaction between local CCA policy networks and national CCA policy networks is also weak (dashed line). The present research found that vertical implementation is the main mechanism of CCA policy in Vietnam, with horizontal implementation being in its infancy with limited policy-level actions.

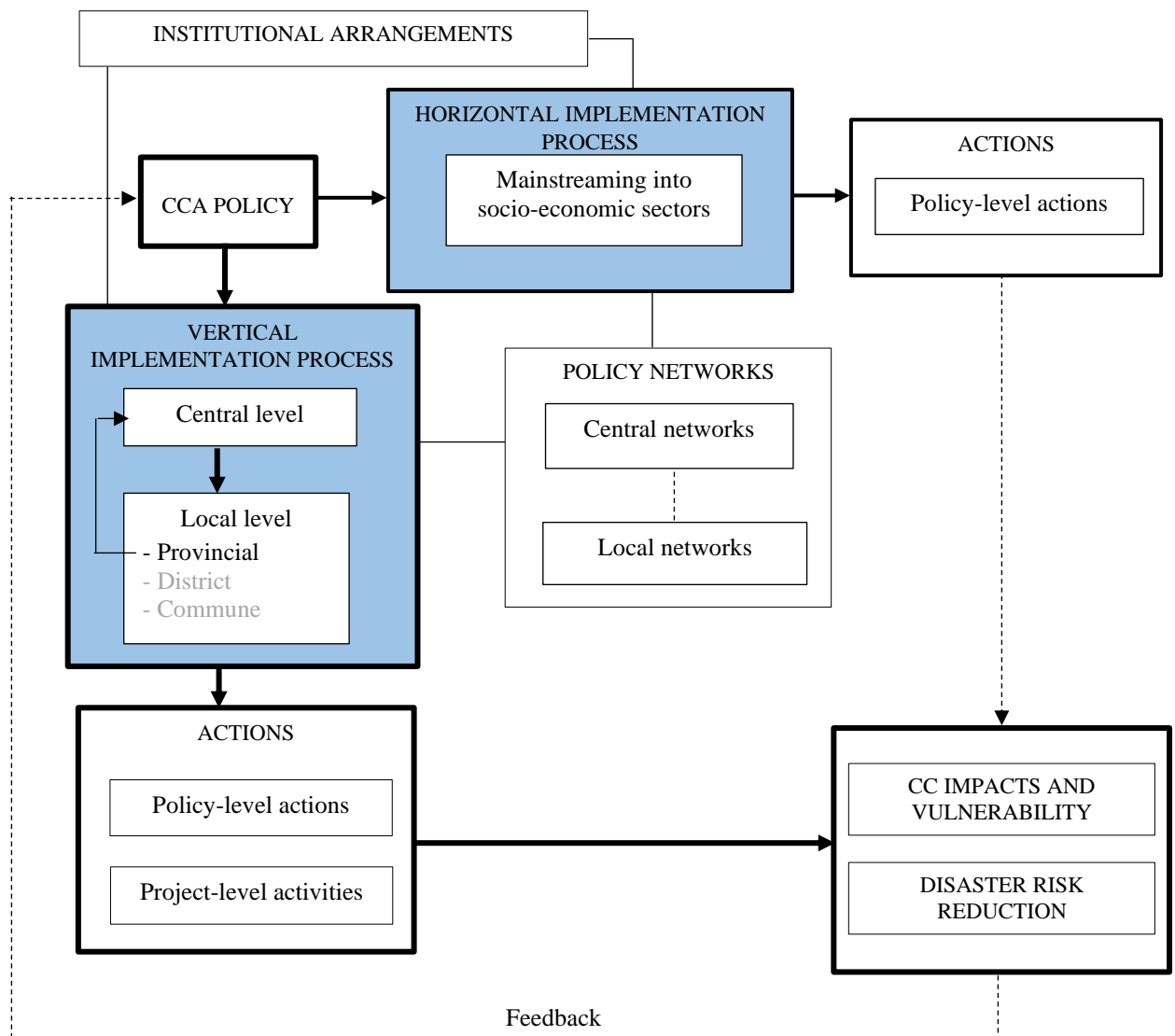


Figure 9.3: The revised conceptual framework (source: Author)

9.16. Chapter Summary

Policy is often the outcome of incremental ‘muddling through’ a catalogue of different problems (Lindblom, as cited in Urwin & Jordan, 2008), some of them climate related, some of them not. Although there are three policy documents regarded as CCA policy, they also cover some other related problems such as disaster prevention, forest development, and irrigation. Additionally, the objectives and solutions of CCA policies are interpreted differently among policy actors. Consequently, there have been project-level activities that have little if anything to do with climate change, especially ‘hard’ adaptation projects. It is not climate change impacts but something else that has driven authorities to approve CCA related projects. In Vietnam, the political authorities framing adaptation draw on global climate change adaptation discourses that are associated with international funding flows (also see Lindegaard, 2018; Zink, 2013). Yet an analysis of the political rationalities behind

adaptation questions dominant framings and their congruence with adaptation policy and practice and view adaptation, not as a fixed field of intervention, but as an evolving political arena intersected and populated by a range of interests and ideas with often very little to do with either climate change or adaptation to it (Artur & Hilhorst, 2012; Eriksen et al., 2015; Funder, Mweemba & Nyambe, 2018). According to Lindegaard (2018), tracing political rationalities over time reveals how political authorities actively frame adaptation in reference to existing goals and interests, shaping who or what adaptation targets and how. Significantly for the present work, there was evidence that public agencies in Vietnam have been making use of climate change funds to realise their sectoral development objectives.

State-funded activities relating to CCA, e.g. infrastructure development and impact assessment, in localities were mostly carried out by agencies at district, provincial or even national levels. The general public, street-level bureaucracies and their bureaucrats only participated in limited activities with roles as stakeholders not project owners. Some activities on raising awareness and CBA piloting models were conducted and managed by NGOs which worked directly with the local residents. NGOs employed the bottom-up approach to climate change action. None of the three communes in Vinh Chau were delegated to directly undertake any state-funded CCA projects, nor the two communes in Hai Phong. This is not the situation only in Soc Trang and Hai Phong, but throughout provinces and cities across Vietnam. In respect to MLG theory, state power has not been dispersed down to the lowest government level in Vietnam in respect to CCA administration although climate change impacts are manifested and felt at this level. Local authorities have taken CCA actions and implemented projects because the national government requested and funded them to. The mindset of local officials is that if higher authorities assign tasks then they will take action. This phenomenon has also been observed in China, a country with similar political and administrative systems to Vietnam (Qi et al., 2008).

This chapter has discussed the findings from this research in relation to the literature on policy implementation, MLG, and CCA; interpreted evidence of CCA policy implementation in coastal Vietnam; and provided possible explanations for the research findings. Some light has hopefully been shone on the black box between CCA policy intentions and actions on the 'ground', showing the vertical and horizontal CCA implementation mechanisms with policy-level actions and project-level activities within each direction. The next chapter draws the conclusions from this study and provides some implications for future research.

CHAPTER 10:

CONCLUSIONS AND IMPLICATIONS

10.1. Introduction

This final chapter provides the study's conclusions, identifies key contributions from this research, and discusses how the present search advances climate change adaptation (CCA) and policy implementation discourses. The chapter is divided into seven main sections. First, the chapter re-states the research purpose to help reconnect research objectives and findings. Second, it summarises key findings of the present research. Third, the theoretical and practical contributions are elaborated. The limitations are then acknowledged, creating avenues for future research. Next, reflexivity on the development of the research enterprise is presented. The last section highlights the main conclusions of this research.

10.2. Restatement of Research Purpose and Overview of Thesis

This research examines how CCA policy is implemented in coastal Vietnam. The research is grounded in three main bodies of knowledge including multi-level governance (MLG), policy implementation and CCA. It aims to help fill knowledge gaps on implementation studies as well as in the CCA literature, and to help manage real-life problems in respect to CCA governance practice in Vietnam and other coastal developing countries. These purposes are tackled through four specific objectives: investigating how CCA policy is transferred and transformed from national to local levels in Vietnam; investigating how CCA policy is mainstreamed to sectoral policies in the coastal context in Vietnam; exploring the perceptions of Vietnamese government officials from local to national levels on climate change, impacts, CCA actions; and identifying motivators for and barriers to CCA policy implementation in Vietnam.

The 'story' of CCA policy implementation has been generated based on relevant theories, research methods, and work experience of the researcher. The thesis started with reviewing the literature on public policy implementation and MLG theories. The gaps on policy implementation were identified, and the theoretical approach of placing implementation within broader MLG highlighted the vertical and horizontal dimensions of policy implementation with the involvement of various policy actors and stakeholders in the policy processes. The policy sector under investigation - CCA was discussed in chapter three which offered a basic understanding of CCA related concepts, CCA approaches and discourse. The 'wicked' characteristics of CCA was emphasised, which reaffirms the relevance of employing a MLG lens in an implementation study. The study of CCA policy implementation was conducted in coastal Vietnam, a highly vulnerable country to climate change impacts owing to its geographical and socio-economic conditions. The literature review resulted in a conceptual framework which suggested how CCA policy should be implemented, highlighted main elements of the study and guided empirical investigation in Vietnam. Next, chapter five discussed research methodology,

presenting how data were collected and analysed to seek answers to the research question. The research findings were then reported in three chapters (six, seven and eight), which were about how CCA policy has been actually implemented in coastal Vietnam. Chapters six and seven focused on the vertical implementation process whilst chapter eight covered the horizontal process which was the mainstreaming of CCA into sectoral policies. The research findings were then discussed in relation to the literature on policy implementation, MLG, CCA, and the four research objectives. The initial conceptual framework developed in chapter five has been revised based on the research findings. These discussions were encapsulated in chapter nine. The thesis is concluded with chapter ten.

10.3. Key Research Findings

10.3.1. Climate change adaptation

Research undertaken in coastal Vietnam as part of this thesis reveals that CCA has been framed as an external hazard-based adaptation by sectoral and local policy actors. This framing has determined the adaptation solutions and priorities in practice. This is significant as how a problem is perceived by policy actors will influence its urgency, interests, goals, and solutions. Problem framing also gives direction to policy making and help account for policy outcomes (Bleich, 2002). The framing of CCA in terms of hazard partly explains the priority given by local and sectoral authorities to dyke building and coastal afforestation. ‘Partly’ because priority setting is a political activity, influenced by values and interests (Smith, Mitton, Davidson & Williams, 2014).

Climate change is long-term and uncertain, which is the type of problem which usually does not gain interest and action from local policy-makers (Vogel & Henstra, 2015). However, empirical research in Hai Phong and Soc Trang shows that local authorities have taken policy-level actions and project-level activities. Interview data showed that local decision-makers perceived climate change in terms of natural disaster, therefore CCA is regarded as disaster risk reduction (DRR). They also viewed climate change as a source of funds. These factors have driven local CCA actions rather than the actual impacts of climate change manifested in localities.

The top-down planning tradition in Vietnam has also facilitated the formation of climate change ‘policies’ at local levels. The party Resolution 24-NQ/TW in 2013, the National Climate Change Strategy (NCCS) in 2011, and the National Target Program to Respond to Climate Change (NTP-RCC) in 2008 have directed the policy-level actions in both Hai Phong and Soc Trang. CCA policies were originally designed to address climate change impacts and vulnerabilities however, policy actors, such as the agriculture sector, have taken advantage of climate change programs to realise sectors’ objectives. Bruun (2012) conducted a study on climate vulnerability in central Vietnam, pointing out the underlying drivers of adaptation practices such as attracting foreign aid and meeting the interests of the elite rather than improving the situation of vulnerable populations. Bruun (2012) agreed with Fortier (2010) in describing the situation in Vietnam as ‘take a climate chance’. In this regard, the

motivation of CCA actions can be politically-related. As Hupe (2014) argues, there are often important unstated political intentions behind a policy. The policy-politics nexus can be identified in terms of specific policies used by government to achieve strategic political ends (Mukherjee & Howlett, 2016).

There was evidence of mainstreaming CCA into development however, it mostly remains symbolic. The majority of interviewees reported this phenomenon. National and local government reports also acknowledged the mainstreaming problem, which only occurred at policy-level actions. Government officials across all levels talk about mainstreaming but no one knows how to do it, which was described by one respondent as the ‘mainstreaming effect’.

With respect to vertical CCA policy implementation, project-level activities were found to be the mechanism turning CCA policy objectives into actions on the ground. The role of projects in the mainstreaming process is similar. Pervin et al. (2013) argues that even where climate change is well mainstreamed into national and sectoral planning processes, the execution of specific projects remains the way to translate policies, strategies and plans into concrete actions. Practices in Vietnam at national, sectoral and local levels showed that although there were policy-level actions in relation to CCA mainstreaming, project-level activities were almost absent. There was an appraisal tool for mainstreaming CCA into strategies and plans (e.g. strategic environmental assessment (SEA)), but there was no tool at an operational level. Environment impact assessment (EIA) was not officially used for climate proofing sectoral development projects. The consideration of climate change issues in project design, appraisal and implementation remains voluntary.

In horizontal implementation mechanisms policy-level actions are clear, but the project-level activities require further clarification. Project-level CCA mainstreaming refers to the consideration of climate change risks in designing, appraising, approving, delivering, and monitoring and evaluating projects (Pervin et al., 2013). All projects funded directly from climate change programs such as the SP-RCC and NTP-RCC are classified into the vertical implementation mechanism (chapters six and seven). CCA-mainstreamed projects are sectoral projects which are not funded from climate change programs but sectors’ own budgets. One of the purposes of CCA mainstreaming is to get funds and authorities for CCA activities (Tobey et al., 2010). According to USAID (2009), by mainstreaming CCA into development initiatives there is already access to the pool of resources already ring-fenced for those initiatives. This eliminates the need to create a separate resource pool (budget line) for stand-alone CCA efforts and also helps remove the financial barriers to CCA policy implementation reported by almost all sectoral and local government officials. Such a classification of what is a CCA-mainstreamed project has never previously been raised in the CCA literature.

International actors are an integral part of CCA policy processes in Vietnam. National and local governments, especially in developing countries, often rely on international actors’ expertise and finance in formulating and implementing domestic policies. When a policy field is in favour of external intervention, the international actors can be expected to be an integral part of domestic policy

(Howlett & Ramesh, 2003).

The main institutional barrier to CCA implementation is the cross-sectoral coordination and collaboration in Vietnam due to the strong ‘silo effect’. CCA is still seen as the task of the Ministry of Natural Resources and Environment (MONRE), although line ministries and provinces view climate change as a source of funds. This barrier is not unique in Vietnam but a global issue, Mimura et al. (2014) argues that cross-sectoral coordination is a main challenge in CCA implementation.

While large amounts of funds have been spent on ‘climate change’ adaptation through the three national climate change programs, interviews showed that CCA implementation at the local level has been scant, and there is no sign of the situation improving. If anything, the situation is worse given the decline in interest in CCA by local authorities as a result of them having less access to funds, as discussed in chapter nine. National climate change officials who were the ‘architects’ of climate change policies in Vietnam are therefore pessimistic regarding local CCA policy implementation via national programs.

There was no regular monitoring and evaluation (M&E) system for the CCA policy process. Feedback information has not re-entered the CCA policy cycle to enable improvement. However, this appears to be a global problem, given a lack of criteria and metrics for M&E of CCA (Preston, Yuen & Westaway, 2011; Preston, Rickards, Fünfgeld, & Keenan, 2015). It is therefore difficult to track adaptation on the ground, to know if we are successfully adapting to climate change or not (Berrang-Ford et al., 2011). However, note that this research aims to describe and explain CCA policy implementation process, not to formally evaluate the effectiveness and efficiency of the policy, which should be a future research avenue (see section 10.6).

10.3.2. Policy implementation

There are two broad CCA implementation mechanisms in coastal Vietnam including vertical and horizontal implementation. The former reflects the central-local relationship within the CCA sector, led by the MONRE, and the latter is about policy interplay and the mainstreaming of CCA into other sectoral policies. This research identified policy-level actions and project-level activities as ‘action’ in the policy-action relationship in implementation studies (Barrett & Fudge, 1981). The former is an intermediate step which does not yield policy outcomes but creates an enabling environment for CCA, the latter are concrete actions on the ground turning ‘papers’ into practice. The policy-level action highlights that policy implementation is part of the continuum of policy formulation. This finding also confirms the argument in the public policy process literature that separation between policy formulation and implementation is unrealistic (Shanks et al., 2004; Hill, 2013). The policy-making process at national level creates framework policies with general objectives and solutions, which are then given effect by sectors and local authorities to accommodate their circumstances and needs. In CCA policy processes, planning is part of policy implementation with outputs being climate change

action plans which often include a shopping list of projects proposed to address impacts of climate change. The delivery of these projects is also part of CCA policy implementation.

The intermediate-level bureaucracies and bureaucrats play dual roles in CCA policy implementation (see chapter nine), as they are the *actual* CCA policy ‘formulators’, drafting policy documents then submitting to higher level authorities for endorsement. Once the policy documents are adopted, these bureaucracies and bureaucrats become the implementers. The dual role of bureaucracy and bureaucrats in Vietnam is an interesting phenomena in the policy process. It can be observed in other situations, for example the provincial Department of Natural Resources and Environment (DONRE) has dual roles, one with the provincial People’s Committee (administrative relationship), and the other with the national MONRE (technical relationship).

The interaction between CCA and DRR is evidence of policy coalescence (Simmons et al., 1974), CCA policy has mutated as it flows down the policy chain from the ‘top’ to the ‘bottom’ and also over time. Majone (1989) introduced the term ‘policy space’ to denote the interrelationship of a set of policies. He argues that it is impossible to study a single policy in isolation and not all linkages should, or could be considered, but instead relevant inter-actions should be examined depending on the policy type and the framing of the policy problem. This situation is reflected in the substantial interplay between CCA and key policy areas in coastal Vietnam such as DRR and coastal management leading to particular interpretations of CCA and hybrid practices.

Matland (1995) identifies four implementation paradigms: administrative implementation; political implementation; experimental implementation; and symbolic implementation. The last two paradigms occur when a policy is highly ambiguous, which holds true for CCA in Vietnam. Indeed, there is a conceptual challenge in doing CCA research (Biesbroek et al., 2018a) that arises partly from the ‘wicked’ nature of adaptation. There are different adaptation definitions in the literature, and most of them are broad (Berrang-Ford et al., 2015), as adaptation can be almost anything, especially when it is linked to economic development and DRR (Dupuis & Biesbroek, 2013). Empirical research has shown evidence of symbolic implementation in provincial CCA planning and mainstreaming process. In respect to planning, concrete activities on the ground were not based on the adopted plans but availability of funds and political intentions of local decision-makers. With respect to mainstreaming, evidence showed there was only the insertion of climate change related terms in sectoral and local policy documents so as to ‘tick that box’ (Clifford, 2016; Lerner & Mason, 2014), rather than any fundamental embracing of the issues involved. There were no sincere CCA-mainstreamed projects in Hai Phong and Soc Trang, the two case studies.

10.3.3. Multi-level governance

MLG has been used as an analytical framework in the present research. There is evidence of MLG of CCA on the ‘ground’ in Vietnam. There are state and non-state actors involved in CCA policy

implementation (policy networks), and institutional structures have been established for climate change, and decisions made by political and governmental actors at national and local levels. Although the active involvement of international donors and NGOs in CCA processes in Vietnam might not come mainly from the wishes of the state, it does still show the dynamics of CCA processes in Vietnam.

Climate change impacts are manifested at commune and district levels but are governed at provincial and national levels. The role of the two lowest government levels in CCA policy implementation is therefore very limited and with respect to CCA policy-making (planning), the situation is even worse as they are excluded. Most CCA policy-level actions and project-level activities at the local level are implemented by provincial/municipal authorities (see chapter seven). At the national level, CCA policy has mainly been implemented by sectoral ministries such as agriculture, transport, and construction, with some research projects conducted by universities (see chapter six).

In CCA governance in Vietnam, the two key governance modes are hierarchical and network based, the markets and community-based approaches were absent. Winsvold, Stokke, Klausen and Saglie (2009) argue that hierarchical coordination has proven a very powerful tool in different socio-political contexts and this mode will remain ubiquitous. The one-party political system and the prevalence of the centralised planning processes nurture hierarchical governance system in Vietnam, although the nature of CCA policy problems has triggered the development of network governance mechanisms with the participation of international donors and NGOs.

10.4. Research Implications

10.4.1. Theoretical implications

CCA studies

CCA is a nascent policy field where knowledge about CCA policy implementation remains limited (Vogel & Henstra, 2015). The present research therefore adds further insights to CCA as well as CCA policy implementation discourses.

Several authors have used MLG as a conceptual framework for studying climate change policy at different levels of authority (Bulkeley & Betsill, 2005; Betsill & Bulkeley, 2006; Corfee-Morlot et al., 2009; Czako, 2011). Among the existing academic work on climate change policy, few researchers applied theories of the policy process as well as implementation in their investigations. Furthermore, the traditional disciplines of political science, and public administration and management have limited coverage of climate change (Rykkja et al., 2014; Pollitt, 2015). This research fills these gaps, by synthesising relevant theoretical elements of public policy implementation and MLG to generate a conceptual framework to inform an academic inquiry on the implementation of CCA policy in coastal Vietnam.

This research encompasses the three research issues recommended by the IPCC (2014): (1) coordination between different political and administrative levels with a focus on harmonising top-down and bottom-up activities; (2) horizontal interplay within a level of governance with a focus on mainstreaming climate change into sectoral policies; and (3) coordination between formal governmental agencies and private stakeholders. Integrating vertical and horizontal CCA policy implementation in a study offers more accurate understanding of CCA mainstreaming in practice. Previous mainstreaming studies took vertical implementation, i.e. stand-alone CCA policy implementation into account, often making mainstreaming appear active. However, in practice, in coastal Vietnam and elsewhere, mainstreaming remains in reality an ideal, (Pasquini et al., 2013; Wyborn & Dovers, 2014). As mentioned in the findings section, the present research showed that CCA mainstreaming in Vietnam has only occurred to a limited extent in policy-level actions. There was no evidence of CCA-mainstreamed projects. Without considering both vertical implementation and horizontal implementation in a study, different findings of CCA mainstreaming might have been presented.

This research advocates the need to shift CCA research beyond applied adaptation research, as CCA knowledge alone is unable to facilitate CCA on the ground, towards understanding the national and local contexts in which CCA occurs and the broader policy environment that facilitates CCA (Keskitalo & Preston, 2019). The present research is therefore regarded as research *for* adaptation rather than research *about* adaption, the former seeks to generate knowledge on CCA implementation (Preston et al., 2015).

Policy implementation studies

Paudel (2009, p.36) argues that “policy implementation studies are not value-free due to socio-cultural, political and economic variations in the country’s context. It may lead to new forms of policy implementation not yet well understood”. As a result, it is important to avoid applying simplistic conceptions of top-down or bottom-up policy-making and implementation. Instead, policies are arrived through a complex process of vertical and horizontal interactions. The dynamic horizontal-vertical interplay should be acknowledged in public policy study in the contemporary Vietnamese context (see also Shanks et al., 2004). The top-down and/or bottom-up conventional approaches in implementation do not entirely capture and explain CCA policy implementation in Vietnam. Other observed approaches are ‘from-the-middle-out’ with respect to the role of the intermediate level (chapter nine) and ‘sideways’ (mainstreaming - chapter eight). The intermediate-level bureaucracies and bureaucrats play an important role in the CCA policy process in Vietnam and significantly influence CCA policy-making and implementation. With respect to the sideways mechanism, implementation typically refers to the translation of policy intention to actions. However, implementation can also involve the process of incorporating the principles, objectives and solutions of a policy into other policy domains, this process is referred to as mainstreaming (Lafferty & Hovden, 2003).

There is no generally accepted implementation theory in the literature, and researchers have used partial theories instead. This research did not start with any specific theory of the policy processes such as Contextual Interaction Theory (Bressers, 2004) or the Advocacy Coalition Framework (Sabatier, 1988). Instead, the theoretical approach was the integration of elements of policy implementation and MLG theories. The synthesis of theoretical elements between MLG and implementation studies to examine CCA policy in the Vietnamese context make this implementation research novel. This theoretical approach is therefore in keeping with contemporary implementation research, sometimes referred to as ‘third generation’ or ‘neo-implementation studies’ (Hupe, 2014).

Theoretically, policy formulation and implementation can be separated for analytical purposes of public policy however, in practice the two ‘stages’ overlap. The notion that public policy-making is a process that evolves through a sequence of discrete stages (Ham & Hill, 1984; Hogwood & Gunn, 1984) is not reflected by the findings of the present research. In this case, CCA has been transformed to DRR; and the intermediate level research institutes (e.g. ISPONRE) work with the dual roles of policy ‘formulators’ and implementers of CCA policy. This finding is also reinforced by previous relevant research in Vietnam, for example, Shanks et al. (2004) found that idealised distinction between formulation and implementation is in reality often blurred. Public sector policies are often transformed during implementation.

The vertical and horizontal implementation conceptual framework developed in this research (a multi-level, multi-sector, and multi-actor model) can be used to study implementation in other public policy fields which involve the process of incorporating the principles, objectives and solutions of a policy into other policy domains such as disaster management, environmental protection, or gender policies. Further empirical testing could refine the model, advancing policy implementation theories.

Multi-level governance studies

The MLG perspective has drawn attention to the role of non-state actors (e.g. international donors and NGOs in Vietnam) in CCA policy implementation at different government levels, highlighting policy networks in adaptation governance. The MLG lens used in the present research has acknowledged the complexity of the CCA processes, which are not only about climate change per se but socio-economic-political issues as well. It highlighted the issue of diffusion of governmental power across levels and how the central government devolves its authority to local governments. The MLG lens also triggered the investigation of the role of policy networks in the present research.

Policy networks (state and non-state actors) play an important role in policy implementation though in CCA implementation in Vietnam, private sectors and the general public have not been actively involved in both CCA policy-level actions and project-level activities. The international networks are stronger than the other non-state actor networks such as research institute networks and business networks. The international networks and NGO networks have supported the GoV in implementing

CCA policy implementation and they have also triggered changes in CCA national climate change policies through conditional loans/grants (under the SP-RCC program). The long-term involvement of local and international NGOs has contributed to the bottom-up approach to the CCA policy process, with their work providing insights for government CCA policy development. NGOs have been involved in CCA in Vietnam since the early 2000s (Interviewees NS1, NS2, NS4) while government policy was initiated in 2008. Without international support, Vietnam's efforts in CCA policy-making and implementation would have been delayed. This illustrates the CCA public policy processes need to be understood as being not only dominated and controlled by state actors but also responding to an international sphere of influence (Steinberg, 2003).

10.4.2. Practical implications

National government

External climatic stimuli interact with internal social, economic, and political processes to structure climate change vulnerabilities in Vietnam. The GoV and the MONRE have mainly focused on the former, ignoring the cause of vulnerabilities. If the situation continues, DRR will remain the core of CCA in Vietnam.

The MONRE is an environmental agency, and a weak government body in Vietnamese politics. International research highlights that CCA is not an environmental issue but a socio-economic matter. Currently, the Ministry of Planning and Investment (MPI) is responsible for Vietnam Agenda 21 and the implementation of the 17 sustainable development goals (SDGs). It is the lead agency in guiding CCA mainstreaming and, more importantly, it is a powerful ministry. Shifting the CCA mandate from the MONRE to the MPI is an option to be considered to facilitate CCA horizontal implementation, i.e. mainstreaming CCA into socio-economic development, which in the long run would potentially be more sustainable than vertical implementation, i.e. stand-alone CCA. Noble (2019) noted a trend in developing countries that adaptation mandates are moving from environmentally oriented agencies to economic agencies with responsibility for finance and planning. However, success with such measures is not just a function of organisational power but also the knowledge and values that those agencies possess and put to use.

M&E of CCA policy has been weak if not absent and the GoV and MONRE are unable to know what is going on 'out there on the ground' in relation to CCA whilst they keep producing plans. Attention should be paid to stocktaking existing CCA efforts (both government-led and autonomous) then facilitating good practices. In other words, stop taking adaptation policy actions and start stocktaking adaptation practices before engaging in further actions.

Essentially, there are too many planning documents at national and provincial levels. Attention should be paid to project-level activities since they are the means to translate plans to concrete outcomes on

the ground. In other words, the GoV should shift emphasis to actual implementation rather than developing new CCA related plans. In relation to the issue of mainstreaming (horizontal implementation), there exist sectoral and local development plans, and climate change authorities should reinforce the implementation of such plans in the context of climate change rather than stand alone CCA plans.

One of the key barriers to CCA policy implementation reported by interviewees is a lack of funds, a sustainable solution is to get CCA mainstreamed into the socio-economic development planning cycles (both five-year and annual). The annual socio-economic development planning and budgeting process is a good entry point and can directly enable CCA funding (see section 8.3.4, chapter eight). At the national level, the MONRE needs to negotiate with the MPI to include CCA into formal planning processes. As Howlett, Mukherjee and Fritzen (2019) argue, in order to secure resources for implementation, CCA policies, plans, and programs must be mainstreamed into budget cycles and operations.

Ideally, such changes need to be accompanied by changes in how CCA is conceived of and framed. There is a need for a paradigm shift in the perceptions of policy-makers, in policy problem framing and in policy-making, entailing a shift from impact-based to vulnerability-based adaptation, and moving CCA as an ‘addition’ or ‘extra’ to CCA as ‘development’. However, there is only limited movement in this direction at the moment.

What could potentially encourage reconsideration of CCA is the need for the GoV to improve the M&E of existing CCA efforts. Current regular CCA policy M&E does not exist, therefore the effectiveness and efficiency of CCA policy-level actions and project-level activities are basically unknown. Due to the scale issue of adaptation, cross-provincial coordination approaches to CCA should be developed (regional approach). Though the GoV has expressed its concerns with this issue (Resolution 120/NQ-CP in 2017) the implementation of government intentions remains slow. Nevertheless, the incorporation of new insights into the success of policy initiatives can potentially shift policy trajectories to improve their efficiency and effectiveness. Indeed, instead of paying too much attention to CCA policy per se, the GoV should also focus more on the policy environment that enables CCA policy implementation given its role in influencing organisational and individual agencies. Keskitalo and Preston (2019) also argue that the system within which CCA is embedded is more important than CCA itself. For example, more attention needs to be paid to CCA mainstreaming rather than stand-alone climate change programs. de Oliveira (2009) argues that how CCA policy is integrated into sectoral policies determines the success of CCA policy implementation. The national programmatic approach to CCA policy implementation appears ineffective, given that the top-down financial mechanism makes local governments view climate change primarily as a source of funds rather than an issue to address.

Overall, there is no one-size-fit-all solution to facilitate CCA policy implementation in Vietnam, but a

combination of measures, from awareness raising for government officials to institutional changes, and enhancing international cooperation.

Local government

Provincial/municipal governments have to create opportunities for district and commune authorities to be involved in CCA policy implementation through decentralisation of projects and budgets (the extent depends on local capacity), offering technical support and regular training of staff. CCA is a new public issue, learning by doing is an appropriate approach to build local capacity, by getting district and commune bureaucracies and bureaucrats involved in project-level activities they can gradually develop knowledge on climate change and their management capacity. In this regard, Ayers et al. (2014) argues that carrying out CCA projects will result in knowledge generation.

International donors and NGOs

The cross-sectoral approach to fund CCA should be maintained in order to connect relevant policies, actors and stakeholders. In the context of low legal requirements and lack of mandate, donors can request cross-sectoral collaboration and non-state actor involvement as loan/grant conditions. This approach would help address the strong ‘silo effect’ in public administration in Vietnam. Ideally, all ODA projects should mainstream climate change considerations as a requisite condition for approval (climate-proofing). Donors and NGOs also need to shift their perception of CCA to CCA as development.

10.5. Limitations

Though a multi-method approach combining interviews and document analysis was taken to ensure the robustness of the research findings as this research was primarily based on qualitative investigations. As acknowledged in chapter five, the positionality of an insider researcher might create bias in data collection and analysis. However, interviews with stakeholders working outside of government and across the four levels of government have helped address the issue of bias. Nevertheless, in some cases, interviews were not recorded at the request of respondents, creating an inconsistent approach to transcribing interviews. Some authors have also raised the challenges of interviewing government officials such as trustworthiness of the findings (Rubin, 2014; Phuong et al., 2018). In addition, the archival research was based on physical documents (government reports and planning documents), some of which might have been created for external communication purposes, although insider access did assist with archival material gathering.

The study did not directly examine the role of informal institutions in CCA policy implementation. Benedikter (2016) argues that informal institutions such as values, culture and worldviews are crucial factors in policy processes. They can be the root causes of implementation barriers rather than the mere symptoms, such as lack of financial resources or poor coordination. In respect to the role of

policy actors, this research also mainly focuses on organisational levels rather than the actions of individuals. However, this approach was potentially more appropriate in the Vietnamese policy and political context.

10.6. Future Research

A large-n study that combines quantitative and qualitative research (mixed methods) would allow the testing and comparison of more cases in different contexts to better understand the CCA policy implementation process. Quantitative methods (e.g. large scale survey) would also help address the potential bias of an insider researcher.

CCA evaluation research would help shed light on the effectiveness of adopted CCA policy in Vietnam. Research with both coastal and non-coastal case studies would also provide a more comprehensive ‘story’ of CCA policy in Vietnam.

Although this study applied a bottom-up approach to implementation, the focus was more on policy actors involved in the policy implementation process rather than the various types of autonomous adaptation by farmers, households, and firms (local initiatives). Further research is also needed to understand the role of street-level bureaucrats in Vietnam as they were found to play only a limited or no role in CCA policy implementation. However, in other policy sectors such as education, healthcare and other social affairs, they play more important roles (Jardine, Crofts, Monaghan, & Morrow, 2012).

The role of informal institutions also needs further research, as Benedikter (2016) argues, formal institutional constraints are not the actual root causes of implementation deficits but merely represent the symptoms of something more deeply imbedded within informal institutions. Future research could also further investigate individual motives in involving and making decisions on CCA implementation. CCA policy studies might employ organisational behaviour theories to understand and explain the interactions among policy actors and stakeholders such as the ‘silo effect’ found in the present research, and the strength of their relationships. Furthermore, analysis of the relative power of ministries might help better understand and compare the influence of some key government agencies (e.g. MONRE, MPI, MOF, MARD) on the CCA policy implementation process in Vietnam.

Overall, there is a major research and practice gap as to how to mainstream CCA into development in Vietnam as well as developing countries. Research specifically aimed at CCA mainstreaming would meet this urgent practical need and this could also complement studies on the M&E research gap in CCA literature and practice.

10.7. Reflexivity

Biesbroek et al. (2018a, p.11) called for CCA researchers “to be more explicit and transparent in all aspects of their research: in the choices when setting up their research design, sampling of cases,

defining reliable and valid measurements of the dependent (and independent) variables, ensuring replicability of their research, and reflecting on the limitations that impact the research findings”.

In undertaking this thesis the author plays the dual roles of a government official and a young CCA researcher, this helps connect CCA scientific knowledge and CCA policy-making and implementation, translating language of researchers to language for practitioners. Preston et al. (2015) argue that research alone is not sufficient to drive adaptation responses within society and CCA researchers should play multiple roles.

This research is free from the direction of the MONRE, the researcher’s employer. The research is funded by a foreign government not the Vietnamese government. The researcher was not tasked with this work by the MONRE but was motivated by personal interest, gaps in the literature and the potential to contribute to CCA policy implementation in developing countries including Vietnam.

This research has used multiple sources of data, at national level of Vietnam and in the two case studies: Hai Phong city and Soc Trang province. Additionally, information available on the Internet has also been used. Having evidence from various sources facilitates better understanding of the contextual nature of CCA policy choices, and the factors that enable local officials to overcome barriers (Vogel & Henstra, 2015). This is also important as information in Vietnam on the practice of governance of CCA at the district and commune levels was limited, which posed the challenge of ‘how to write about what is not there’.

Some studies of CCA policy have excluded developing countries as they have limited data available (Biesbroek et al., 2018a). Instead, the author took advantage of his positionality as a researcher coming from a developing country.

As noted, the research idea came from a literature gap, real-life problems and personal interest of the author. I entered adaptation research as a result of some years of work experience in a government agency responsible for climate change governance though my work did not directly relate to climate change or CCA administration (I work for the Department of Planning and Finance (DPF) whilst climate change is administered by the Department of Climate Change (DCC)). Without declaring who I was in the present research, the thesis reader was unable to know too much of the positionality of the researcher. This has also been to ensure that attention is paid to the research rather than the researcher (Preston et al., 2015).

10.8. Concluding Remarks

Vietnam is among the most vulnerable countries to climate change and sea level rise (GoV, 2008; Kulp & Strauss, 2019). Climate-induced disasters such as typhoons, floods, landslides, inundations, and droughts have led to 9,500 deaths and missing as well as an annual economic loss of about 1.5% of GDP during the 2001-2010 period (GoV, 2011a). In response, the Government of Vietnam and its

ministries and localities, have developed, adopted, and implemented a number of climate change as well as adaptation policies since 2008.

The present research found two main mechanisms of CCA policy implementation in coastal Vietnam, the vertical and the horizontal, with the former being more prevalent than the later. Within each mechanism, there are two processes of policy-level action and project-level activity. The perceptions of government officials and non-state actors on CCA related issues were explored and the barriers and drivers of CCA policy implementation were identified. Overcoming these barriers would improve effectiveness of adaptation policy implementation. However, in the long run, attention should be paid to the root causes of the barriers, for example, a lack of funds is the consequence of seeing adaptation as an addition to development, and the framing of CCA as impact-based adaptation which leads to technical, large scale investments.

If policy implementation theory defines that the top-down approach starts with specific policy decisions, and the bottom-up approach starts with the analysis of multi-actor interaction (policy networks) in implementation then the approach in this research is the integration of these two approaches. This research focuses both on the specific CCA policy formulated by the national government, and the policy actors and their interactions during the implementation process. The MLG perspective locates the implementation across different levels of government and different sectors.

The present research is regarded as a neo-implementation study (implementation is placed within broader multi-level governance (Hupe, 2014; also see figure 1.1 in chapter one). The research design follows the majority of the literature surveyed by Saetren (2014): qualitative tradition; comparative case studies; and cross-provincial comparison. However, what make this research not ‘another implementation research!’ is the nascent policy field under investigation, CCA; research conducted in the global South; and the employment of an MLG approach to studying implementation. These three aspects distinguish this work from previous implementation studies.

Some of the barriers/problems to CCA implementation in coastal Vietnam could be explained as the framing of CCA, however, they could also be explained by the broader governance approach. The CCA policy processes in Vietnam have occurred mainly in the hierarchical, and partly, in networks governance modes. The hierarchical governance form neglects local knowledge and creativity, while this top-down approach contains weak feedback mechanisms (Winsvold et al., 2009). Furthermore, in a functioning hierarchical mode, the government uses power to enforce regulations and enforcement through coercion requires extensive resources for control, creating more pressure on the central government administrative system. This partly explains why interviewees in the present research reported poor feedback and a lack of funds for implementation.

Though there have been CCA policies developed at international and national levels, the implementation of CCA policy in coastal Vietnam remains ad-hoc. CCA has not become a regular task

of sectoral and local authorities (except for MONRE, DONRE, and DIONRE). Currently, the three climate change national programs are the main means to translate CCA policy objectives into actions. However, the continuity of such programs in the future is insecure due to a tight state budget and questions as to the effectiveness and efficiency of past investments. There has been no national scale assessment of CCA spending since the issue officially became a concern of government policy and investment in 2008 (introduction of the NTP-RCC).

In the long-run, the impact-based approach to CCA needs to be changed to development-based or vulnerability-centred CCA. The focus is not only climate change per se but the system/context (e.g. socio-economic, institutional, political, technical, and cultural environment) within which CCA occurred. In this regard, Noble et al. (2014, p.852) argue that an “impacts-based approach requires external scientific and technological expertise for defining climate change problems, and formulating technological adaptation solutions, based on specific knowledge of future climate conditions. Such assessments are necessarily ‘top-down’ because this expertise exists at the global and national level”.

Sectors have not sincerely mainstreamed climate change considerations into their development policies and projects. Instead, they have been making use of climate change programs to realise sectoral policies’ objectives. The vertical CCA implementation process has shown that most climate change funds have been used by other sectors other than the Natural Resources and Environment (NRE) sector. This does not necessarily mean non-climate sectors have mainstreamed climate change, but rather they have exploited climate change funds. If a sectoral project is claimed as a CCA-mainstreamed project it should have climate change considerations incorporated into its objectives and specific tasks and especially, and most importantly, funds to implement projects should be allocated from the sector’s own budget.

The accumulative impacts of climate change are on the rise especially in coastal regions, however findings from this research provide pessimistic future prospects for CCA policy implementation, especially at the local level. The stand-alone climate change programs had been effective in the beginning when awareness and knowledge were limited, although over 10 years, circumstances have changed and it is time the GoV shift from a programmatic to a mainstreaming approach. CCA needs to become an integral part of development.

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APPENDICES

Appendix A: List of laws

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Appendix B: List of 45 research participants

No.	Interview location	Anonymised name	Organisation
NON-STATE RESPONDENTS: 8			
1	Hanoi	NS1	Oxfam in Vietnam (NGO)
2	Hanoi	NS2	Centre for Sustainable Rural Development (NGO)
3	Hanoi	NS3	CARE International in Vietnam (NGO)
4	Hanoi	NS4	United Nations Development Program (UNDP)
5	Hanoi	NS5	Japan International Cooperation Agency (JICA)
6	Hanoi	NS6	Hanoi University of Science
7	Hanoi	NS7	Vietnam National University
8	Hanoi	NS8	National Academy of Public Administration (university)
STATE RESPONDENTS: 37			
National level: 10			
1	Hanoi	SN1	Institute of Meteorology, Hydrology and Climate Change, Ministry of Natural Resources and Environment (MONRE)
2	Hanoi	SN2	Department of Climate Change, MONRE
3	Hanoi	SN3	Department of International Cooperation, MONRE
4	Hanoi	SN4	Department of Land use planning, General Department of Land Administration, MONRE
5	Hanoi	SN5	Division of Planning, Department of Marine and Island Exploitation Management, Vietnam Administration of Sea and Island, MONRE
6	Hanoi	SN6	Division of Planning, Department of Water Resources Management, MONRE
7	Hanoi	SN7	Department of Planning and Finance, MONRE
8	Hanoi	SN8	Department of Science, Education, Natural Resources and Environment, Ministry of Planning and Investment (MPI)
9	Hanoi	SN9	Department of Disaster Management and Safety Control, Ministry of Agriculture and Rural Development (MARD)
10	Hanoi	SN10	Institute of Policy and Strategy for Agriculture and Rural Development, MARD
Provincial level: 14			
1	Hai Phong	SP1	Division of Sea and Island, Department of Natural Resources and Environment (DONRE)
2	Hai Phong	SP2	Climate Change Unit, Division of Sea and Island, DONRE

No.	Interview location	Anonymised name	Organisation
3	Hai Phong	SP3	Division of Sea and Island, DONRE
4	Hai Phong	SP4	Climate Change Unit, Division of Sea and Island, DONRE
5	Hai Phong	SP5	Division of Irrigation and Disaster Management, Department of Agriculture and Rural Development (DARD)
6	Soc Trang	SP6	Division of Water, Minerals, Meteorology, and Hydrology, DONRE
7	Soc Trang	SP7	Division of Sea, DONRE
8	Soc Trang	SP8	Division of Water, Minerals, Meteorology, and Hydrology, DONRE
9	Soc Trang	SP9	Division of Sea, DONRE
10	Soc Trang	SP10	Division of Land Management, DONRE
11	Soc Trang	SP11	Department of Planning and Investment
12	Soc Trang	SP12	Women's Union
13	Soc Trang	SP13	Division of Planning and Finance, DARD
14	Soc Trang	SP14	Division of Irrigation and Disaster Management, DARD
District level: 8			
1	Hai Phong	SD1	Division of Natural Resources and Environment (NRE)
2	Hai Phong	SD2	Division of Economic Affairs
3	Hai Phong	SD3	Division of NRE
4	Soc Trang	SD4	Division of NRE
5	Soc Trang	SD5	Division of NRE
6	Soc Trang	SD6	Division of Economic Affairs
7	Soc Trang	SD7	Women's Union
8	Soc Trang	SD8	Division of Planning and Finance
Commune level: 5			
1	Hai Phong	SC1	NRE bureaucrat, Communal People's Committee
2	Hai Phong	SC2	Fatherland Front, Communal People's Committee
3	Soc Trang	SC3	NRE bureaucrat, Communal People's Committee
4	Soc Trang	SC4	NRE bureaucrat, Communal People's Committee
5	Soc Trang	SC5	NRE bureaucrat, Communal People's Committee

Appendix C: Human ethics approval letter



HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2017/28/LR-PS

3 July 2017

Tung Thanh Phan
Management, Marketing and Entrepreneurship
UNIVERSITY OF CANTERBURY

Dear Tung

Thank you for submitting your low risk application to the Human Ethics Committee for the research proposal titled "The Implementation of Climate Change Policy in Coastal Vietnam".

I am pleased to advise that this application has been reviewed and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 21st June 2017.

With best wishes for your project.

Yours sincerely

R. Robinson
pp.

Associate Professor Jane Maidment
Chair, Human Ethics Committee

Appendix D: Information sheet

Department of Management, Marketing and Entrepreneurship
Telephone: in New Zealand: +64 22 0937295; in Vietnam: +84 912 756507
Email: thanh.phan@pg.canterbury.ac.nz
Date: _____ 2017

“The implementation of climate change policy in coastal Vietnam”

INFORMATION SHEET FOR RESEARCH PARTICIPANTS

My name is Phan Thanh Tung, I am a PhD student at the University of Canterbury, New Zealand and also a Government Official working for the Ministry of Natural Resources and Environment of Vietnam. I am conducting a research project entitled “The implementation of climate change policy in coastal Vietnam”.

This research examines how climate change policy is implemented in Vietnam. Its findings are expected to improve the effectiveness of climate change governing practice in the country as well as policy implementation literature. I am interested in collecting data on the perspectives of Vietnamese Government Officials, international consultants, NGOs representatives whose work relates to climate change policy issues. The information will be used for my PhD thesis, related publications and conference presentations.

If you choose to take part in this study, your involvement in this project will be to participate in one or two interviews to be arranged at a time and location of your convenience. Each interview may last about one hour; and will be voice recorded with your agreement.

As a follow-up to this investigation, you may be asked to review the transcription of your interview.

Participation is voluntary and you have the right to withdraw at any stage without penalty. You may ask for your raw data to be returned to you or destroyed at any point. If you withdraw, I will remove information relating to you. However, once analysis of raw data starts after your interview, it will become increasingly difficult to remove the influence of your data on the results.

The results of this project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public without your prior consent. To ensure anonymity and confidentiality, the identification of participants will not be made public without their consent; each participant will be assigned a code and only the researcher and members of the supervisory team will know which code relates to which individual; data collected for this study will be stored securely at the University of Canterbury (UC) and will be destroyed within 10 years. A thesis is a public document and will be available through the UC Library.

Please indicate to the researcher on the Consent Form if you would like to receive a copy of the summary of results of the project.

This project is being carried out as a requirement for a Doctorate in Philosophy by Phan Thanh Tung under the supervision of Professor C. Michael Hall, who can be contacted at michael.hall@canterbury.ac.nz. He will be pleased to discuss any concern you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the Consent Form and return it to the researcher Phan Thanh Tung.

Thank you in advance for your time and assistance in this project.

Appendix E: Consent form

Department of Management, Marketing and Entrepreneurship
Telephone: in New Zealand: +64 22 0937295; in Vietnam: +84 912 756507
Email: thanh.phan@pg.canterbury.ac.nz
Date: _____ 2017

“The implementation of climate change policy in coastal Vietnam”

CONSENT FORM FOR RESEARCH PARTICIPANTS

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher and the research supervisory team and that any published or reported results will not identify the participants. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after ten years.
- ☐ I understand that I can contact the researcher Phan Thanh Tung, thanh.phan@pg.canterbury.ac.nz or his supervisor, Professor C. Michael Hall, michael.hall@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- ☐ I would like a summary of the results of the project.
- ☐ I give consent to the researcher to use a voice recorder to record the interview
- ☐ By signing below, I agree to participate in this research project.

Name: _____ Signed: _____ Date: _____

Email address (*for report of findings, if applicable*):

Please return this consent form to Tung Thanh Phan

For Researcher Use Only	Participant code: <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>					
(N for national level, P for province, D for district and C for commune)						

Appendix F: Invitation letter

“The implementation of climate change policy in coastal Vietnam”

INVITATION LETTER

Dear _____,

My name is Phan Thanh Tung, a PhD student supervised by Professor C. Michael Hall, University of Canterbury, New Zealand. I am also a Government Official, working for the Ministry of Natural Resources and Environment of Vietnam. I am conducting a research project entitled “The implementation of climate change policy in coastal Vietnam”.

I would like to invite you to participate in my study. Your involvement in this project will be in one or two interviews to be arranged at time and location of your convenience (including in your office should you wish).

Please be assured that this study is conducted solely for academic purposes; and your name, your organisations and information provided will be treated confidentially.

An Information Sheet is enclosed this Invitation Letter for further information in respect of my research and the terms we should agree prior to interview.

Thank you for your participation in my project. If you have any question, please do not hesitate to contact me at thanh.phan@pg.canterbury.ac.nz or my Supervisor, Professor C. Michael Hall at michael.hall@canterbury.ac.nz.

Kind regards,

Phan Thanh Tung

PhD student, University of Canterbury, New Zealand

Government Official, Ministry of Natural Resources and Environment, Vietnam

Telephone: in New Zealand: +64 022 0937295; in Vietnam: +84 912 756507

Appendix G: Interview guide

Department Management, Marketing and Entrepreneurship
Telephone: in New Zealand: +64 22 0937295; in Vietnam: +84 912 756507
Email: thanh.phan@pg.canterbury.ac.nz

“The implementation of climate change policy in coastal Vietnam”

INTERVIEW GUIDE FOR GOVERNMENT OFFICIALS

Interviewee code:

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(N for national level, P for province, D for district and C for commune)

Date: / /2017

Time: start _____ finish _____

Organisation: _____

Interviewee position: _____

Interview topics and questions: the 5 topics (from 1 to 5) are fixed; specific questions will vary.

1. Climate change, impacts and vulnerability

- Manifestations of climate change impacts in your sector/locality?
- Awareness on climate change issues among government officials in your sector/locality?
- Report/assessment on the state/level of vulnerability in your sector/locality?
- The use of climate change and sea level rise scenarios available in your sector/locality?
- Mitigation or adaptation given priority in your sector/locality? And why?

2. Climate change policy landscape and actors

- When climate change became a policy issue in your sector/locality?
- The main climate change policies in your sector/locality?
- How climate change policies have been formulated in your sector/locality? Who plays central role?
- The foci of climate change policy in your locality?
- The role of international donors in developing climate change policy in your sector/locality?

3. Climate change policy implementation and actors

- The process through which climate change policy is implemented?
- How climate change adaptation is financed in your sector/locality? Does investment meet the demand?

- Which agencies are mainly responsible for climate change policy implementation in your sector/locality? Does the climate change Steering Committee work effectively?
- The collaboration among relevant agencies (within your sector/locality and between national - local)?
- The involvement of private sector (firms) in climate change policy implementation in your sector/locality?
- Monitor and evaluate climate change policy implementation in sector/at local level?

4. Mainstreaming and actors

- The role of mainstreaming climate change into sectoral policies?
- Regulation/mechanism in respect of mainstreaming climate change into socio-economic and/or sectoral development plans?
- Which level of mainstreaming (entry point) is important?
- Does your sector/locality have to revise existing sectoral development/socio-economic development policies to mainstream CC considerations? For the new policies, how mainstreaming is ensured?
- The extent of climate change mainstreaming in your sector/socio-economic development in your locality?
- Which agencies play central role in mainstreaming in your sector/locality?

5. Motivators for and barriers to implementation

- The key motives of climate change adaptation action in your sector/locality?
- The barriers to climate change policy implementation in your sector/locality?

Closing question: Is there anything else you want to share with me in relation to CCA policy implementation?

Analytic memo right after the interview

1. What were your personal feelings and reflections as you were interviewing? How did you personally relate to your participant?
2. What questions were useful/relevant? What were not?
3. Were there any other questions that you should have asked? How satisfied are you with the interview?
4. What codes/concepts stand out for you from the interview?

“The implementation of climate change policy in coastal Vietnam”

INTERVIEW GUIDE FOR NON-GOVERNMENTAL RESPONDENTS

Interviewee code

--	--	--	--	--

Date: / 8 /2018

Time: start _____ finish _____

Organisation: _____

Interviewee: _____

Interview topics and questions: the 5 topics (from 1 to 5) are fixed; specific questions will vary.

1. Climate change, impacts and vulnerability

- The key impacts of climate change impacts in coastal Vietnam?
- Which region in the country is most vulnerable to CC? And which sector?
- The awareness on climate change issues among Vietnamese government officials, at all government levels?

2. Climate change policy landscape and actors

- The policy response to climate change by the Vietnamese Government?
- Is the current policy landscape sufficient to address climate change impacts?
- Vietnam does not have a law on CC; do you see the need for this law?
- Does climate change policies in Vietnam focus on coastal adaptation?
- What is the role of international donors, NGOs in supporting the government of Vietnam to **develop** climate change policy?

3. Climate change policy implementation and actors

- How the key national climate change policies (NTP-RCC, NCCS) implemented?
- Which economic sector (tourism, agriculture, etc.) is most active in CC response and why?
- How development partners involve in CC policy **implementation** in VN?
- What is the role of ODA in CC policy implementation in Vietnam?

- The coordination of relevant agencies in implementing climate change policy in Vietnam? Among government agencies; between government agencies and international development partners; between central - local
- Do you see private sector (business) involved in CCA policy implementation in Vietnam?
- Is climate change policy implementation monitored effectively? How international development partners monitor the expenditure of their funds?
- How to distinguish a CCA project and a “normal” development project? Is the construction of a reservoir for irrigation seen as a CCA project?
- Which agencies are mainly responsible for CC policy implementation in Vietnam? Do you think the National Climate Change Committee works effectively?

4. Mainstreaming and actors

- Do you see the Government of Vietnam, sectors and provinces undertaking mainstreaming?
- At which level, mainstreaming is important?
- Regulation/mechanism/guideline for mainstreaming?
- Which agencies play central role in mainstreaming?
- The degree of CC mainstreaming into development plans in Vietnam?
- There is interplay between adaptation and disaster management, what is your opinion?
- Monitoring and evaluating mainstreaming?

5. Motivators for and barriers to implementation

- What are the key motivators for CC policy formulation and implementation in Vietnam?
- What are the barriers to climate change policy implementation in Vietnam, including those to mainstreaming?

Closing question: Is there anything else you want to share with me in relation to CCA policy implementation in Vietnam?

Analytic memo right after the interview

1. What were your personal feelings and reflections as you were interviewing? How did you personally relate to your participant?
2. What questions were useful/relevant? What were not?
3. Were there any other questions that you should have asked? How satisfied are you with the interview?
4. What codes/concepts stand out for you from the interview?